



BLACKHAWK®

Professional

WRENCHES

SOCKETS, OPEN-ENDS, BOX-TYPES, SERVICE TOOLS

Featuring

NUGGET

SOCKET WRENCHES
WITH THE MONEY-SAVING
DOUBLE-DUTY DRIVE

CATALOG
No. W51

GENERAL INDEX

QUICK-REFERENCE GUIDE

CATALOG No. W-51 . . . ISSUED DECEMBER 15, 1950

Specifications, Production and Shipment of any Item Is Subject to
Discontinuance and Alteration Without Prior Notice

Prices, Terms and Weights are Listed on a Separate Sheet

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GUARANTEE

BUY WITH CONFIDENCE . . . BLACKHAWK WRENCHES ARE GUARANTEED!

All Blackhawk Wrenches are guaranteed against defects in both material and workmanship. Free replacements or repairs will be made on all wrenches that do not stand up to this guarantee. Tools which have been abused or which have worn out in normal usage *will not be replaced*.

Flat Rate Replacements of Worn Wrenches Protect Your Investment . . .

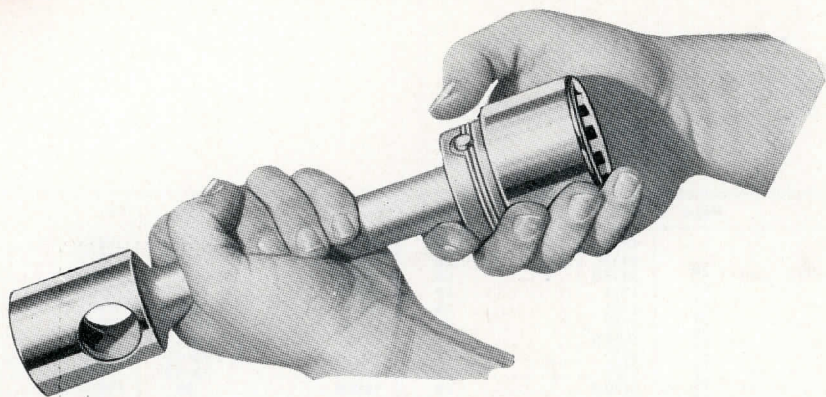
Wrenches which might not get free replacement under the liberal Blackhawk Guarantee, are in many cases still worth money to their owner. Worn or damaged wrenches such as Ratchets, Brace Handles, Hinged Offsets, etc., are repaired and returned on a FLAT RATE charge. Blackhawk has systematized this service to supply speedy, economical repairs. Mail damaged wrenches through the Blackhawk Distributor, or *prepaid* to Blackhawk with details, name and your address.

NUMERICAL INDEX

BLACKHAWK WRENCHES 3

IMPORTANT FEATURES

BLACKHAWK'S Exclusive LOCK-ON

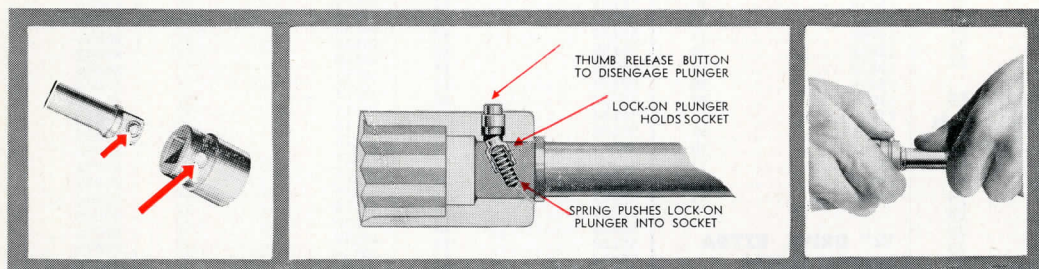


Only Blackhawk Gives You The Speed And Safety Of THUMB-RELEASE **LOCK-ON**

LOCK-ON Clicks Sockets, Handles and Attachments Into One Solid Tool.
THUMB-RELEASE Disengages The Combination.

BLACKHAWK WRENCHES cost no more than ordinary wrenches—even if they did, experienced users say they would gladly pay extra for the THUMB RELEASE "LOCK-ON" FEATURE! FURNISHED IN $\frac{7}{16}$ ", $\frac{1}{2}$ ", $\frac{3}{4}$ " and 1" SQUARE DRIVES.

HOW THUMB-RELEASE LOCK-ON WORKS



1 TO LOCK THE SOCKET on the handle simply line up "Thumb-Release" button in socket wall with "Lock-On" plunger on handle. Slide together.

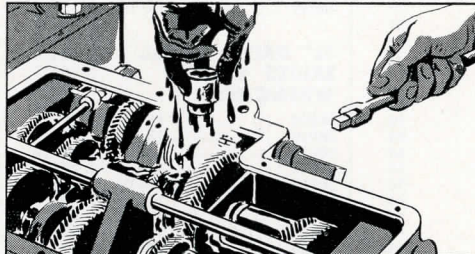
2 CAN'T COME APART ACCIDENTALLY—The "Lock-On" plunger is on an angle so that the socket easily slides onto the drive. The spring then holds the plunger in a sure-grip position, making your wrench combination a solid tool. See above cross-section.

3 TO RELEASE—Hold socket and handle as above—press the "Thumb-Release" button—and simply pull the socket off the wrench handle.

WHY THUMB-RELEASE LOCK-ON IS SO IMPORTANT



WORK LIKE THIS requires rigid Blackhawk wrench combinations to prevent sockets from falling and injuring workers or machinery, and causing production shutdowns.



"LOCK-ON" wrench combinations cannot fall apart or separate under pressure. Loose sockets falling into gear boxes, transmissions and other set-ups, damage vital mechanisms, and hold up production—endanger workers.

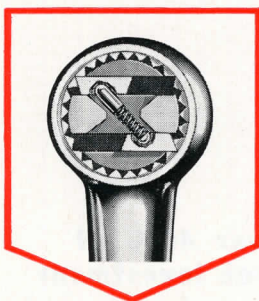
BLACKHAWK'S *Famous* FIRSTS!

IMPORTANT FEATURES

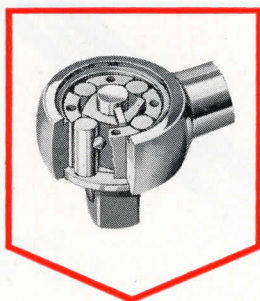
Most of these great features are still only found in the Blackhawk wrench line

- ★ Thumb Release LOCK-ON
- ★ Free Wheeling Ratchets
- ★ Indicating Light on Tension Wrench
- ★ Socket Range from 3/16" to 3 1/2"
- ★ Simplified Open-End Combinations
- ★ Interchangeable Socket Wrenches
- ★ Compact, Streamline Ball-Head Design Ratchets

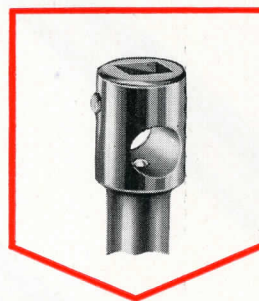
Blackhawk Wrenches Give You These Important Features



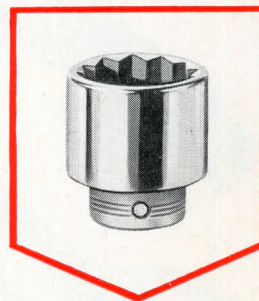
BROACHED TOOTH DESIGN adds strength and compactness to Blackhawk's ratchets. Photo shows firm grip of both wedges which equalize strain — instant reverse. Teeth are hot-broached into heat-treated alloy forging for smooth action and unequalled strength.



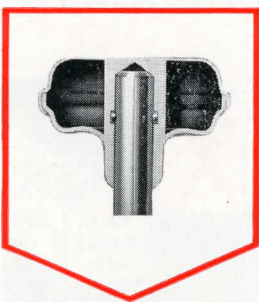
FREE WHEELING design makes this the finest ratchet on the market today! Complete utility with every swing—noiseless—no teeth—no backlash—reverses instantly—does not skip or jump. View shows rollers held in contact by spring-backed plungers.



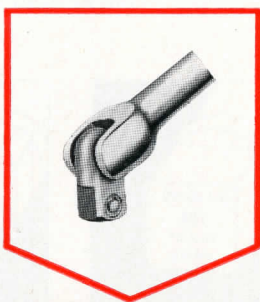
DOUBLE PURPOSE extensions. They increase the value of your wrench investment! They eliminate separate "T" or "L" wrenches. Have cross hole in head to take handle bar to make either "T" or "L" wrench. Ball holds handle bar in all positions firmly.



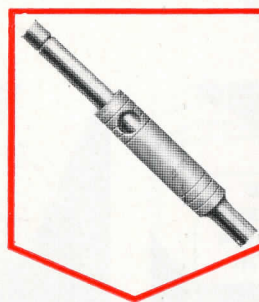
HOT BROACHED SOCKETS. This process, originated by Blackhawk, is a BIG improvement over cold broaching which rips socket wall interiors and invites cracking, rust and nut wear. Hot broaching gives smooth interiors which prolong life of socket.



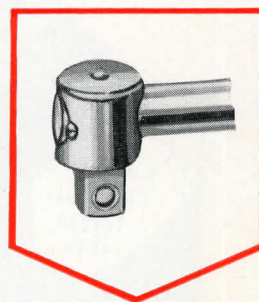
FREE ROTATION — A Blackhawk speeder is never hindered by a sticky grip. Speeder bushing is solid piece of steel—hardened for long and continuous service. Comfortable knob cannot come loose from shank because of locked-in construction.



NARROW HINGE Joints. Blackhawk hinged offsets set in close quarters. They have extremely thin, tough throats and shanks—unusual strength — close-fitted, nested drive plug in hinge—heavily chrome plated—superbly balanced — easily cleaned.



EXTRA LEVERAGE—Blackhawk 1/2", 3/4" and 1" drive Ratchets and 1/2" and 3/4" Hinged Offsets have bored out handles to receive the Blackhawk Handle Bars. This gives quick added leverage on tough nuts and bolts.



DUAL TOOL—The practical Blackhawk "T" Head positions in any spot along bar to serve as "T" or "L" wrench. Spring backed ball, which engages center groove of bar to make firm T—holds head in other positions; prevents turning if socket is used.

**NUGGET
DOUBLE-DUTY
DRIVE**

Here's The Amazing NUGGET Story!



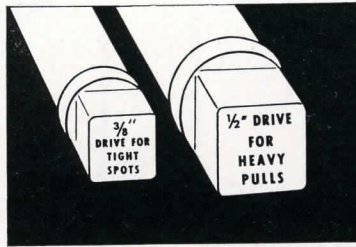
Save Over 40% of Your Wrench Investment

THOUSANDS OF MECHANICS have stopped using $\frac{3}{8}$ " and $\frac{1}{2}$ " drive socket wrenches and have changed over completely to the faster and newer NUGGET DOUBLE-DUTY DRIVE! NUGGETS save over 40% and make more money for you!

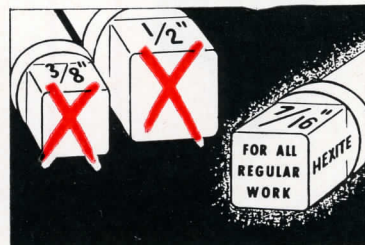
A mechanic would buy 50% MORE TOOLS in the $\frac{3}{8}$ " and $\frac{1}{2}$ " series to have the same range of 50 NUGGETS. Start saving both time and money, do better work — tool up with NUGGETS (over 2,300 combinations can be made with a 50 piece NUGGET set.)



REMEMBER WAY BACK WHEN only CARBON STEEL was the best material available for Socket Wrenches? Clumsy $\frac{3}{8}$ " hex or $\frac{5}{8}$ " square drives were used because lots of BULK was needed for strength. Strength of steel determined the necessary size of the wrench drive.



Then along came CHROME VANADIUM which was strong enough to build a $\frac{3}{8}$ " drive for work in tight spots, but the bulk of a $\frac{1}{2}$ " drive was needed for heavy pulls. That's why mechanics have had to put up with expensive duplication in socket sizes and handle types . . .



Today, Blackhawk has HEXITE steel (70% stronger than Chrome Vanadium). So, LESS BULK is needed and the NUGGET double-duty drive is created. It has the compactness of the $\frac{3}{8}$ " drive plus the strength of the $\frac{1}{2}$ " drive. Now ONE DRIVE makes the two old drives unnecessary!

Why You Should Change to NUGGETS Today

**NUGGET
DOUBLE-DUTY
DRIVE**

UP TO NOW...

These $\frac{3}{8}$ " Drive Wrenches (37) have been needed for Tight Spots



DUPLICATION indicated below is COSTLY and SLOWS UP the Mechanic!

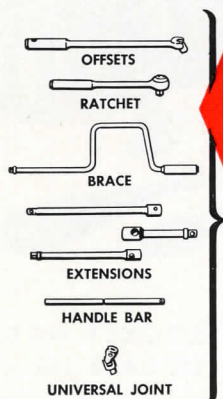
AND... UP TO NOW...

These $\frac{1}{2}$ " Drive Wrenches (42) have been needed for Heavy Pulls

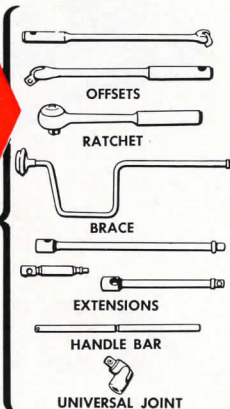


BUT, NOW...

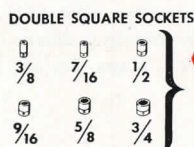
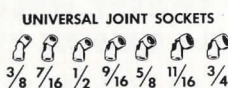
These 52 DOUBLE-DUTY Drive Wrenches do ALL the Work which formerly Required 79 Wrenches in the $\frac{3}{8}$ " and $\frac{1}{2}$ " Series



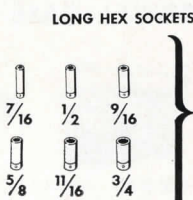
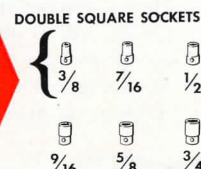
**DUPLICATION
OF ALL HANDLE TYPES**



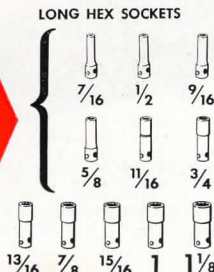
**DUPLICATION
OF SOCKET SIZES**



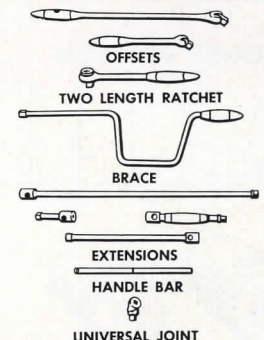
**DUPLICATION
OF DOUBLE SQUARE SOCKETS**



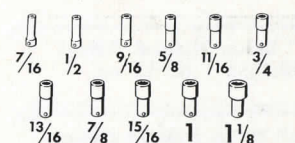
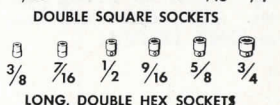
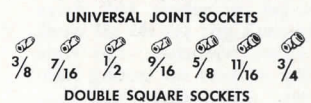
**DUPLICATION
OF LONG HEX SOCKET SIZES**



NUGGETS



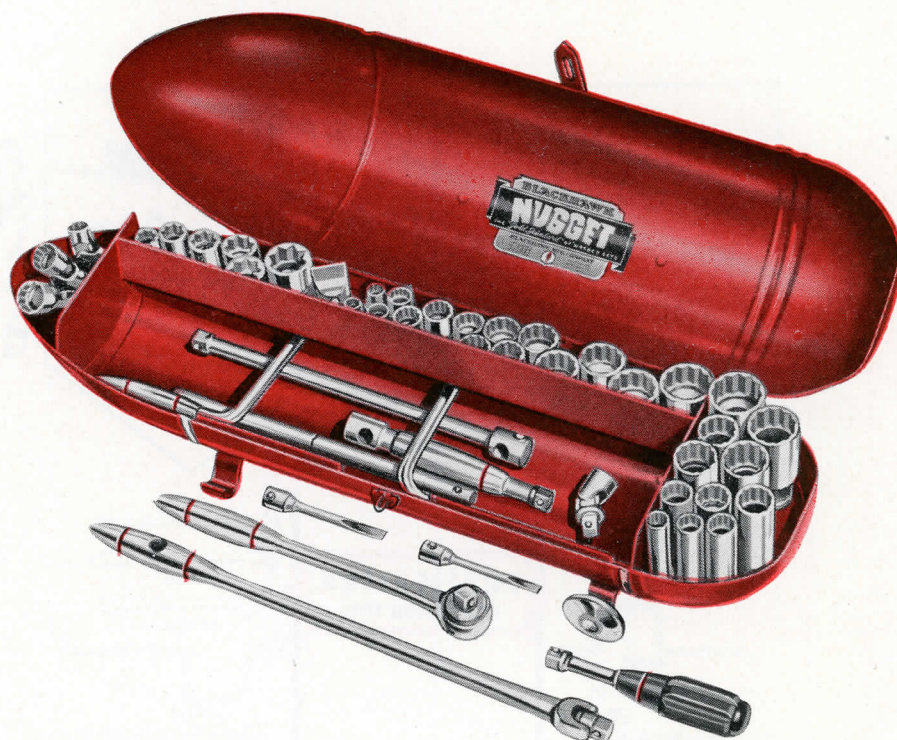
ABOVE HANDLES SERVE THE COMPLETE RANGE OF NUGGET SOCKETS LISTED BELOW...



**NUGGET WRENCHES
($\frac{7}{16}$ " DRIVE)
NO DUPLICATION**

NUGGET 7/16" DRIVE

Beat the Rates with These Practical, Money-Saving Sets!

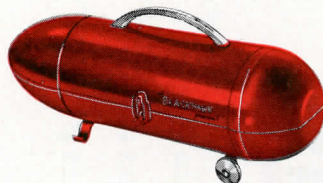


49K 49 NUGGET SOCKET WRENCHES IN TORPEDO STYLE CASE No. 19574

Here's full utility, practicality and value in wrench assortments . . . in the smartest and most convenient "tool carryall" ever designed. 49K has a select range of wrenches. Note the full array of famous Nugget sockets . . . the range of handles to help make you the rate-busting king in your shop. Once you're a Nugget owner, you'll always be a Nugget booster! Complete contents listed on next page.

30K 30 NUGGET SOCKET WRENCHES IN TORPEDO STYLE CASE No. 19574

Here's another value for your money . . . and a real opportunity to beat the clock. 30K is slightly smaller in wrench content than 49K, but gives you all advantages of bullet-case and 7/16" double-duty drive. 30K is popular as "starter set" for mechanics. Make the 30K yours. Listing of 30K contents is given on next page.



Case 19574 is 22 5/8" long, 8 1/2" high and 6 1/2" at largest diameter. Is heavy-gauge steel—weighs 8 lbs.

MOST PRACTICAL CASE BUILT!



THE LID serves as tray for bolts, nuts and parts. Easy to close and lock.



SCOOTs under car. Handy for mechanic operating from creeper.



SCOOP type bottom permits easy, fast withdrawal of handles.



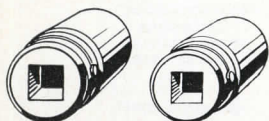
SENSATIONAL SAVINGS!

Figure it out yourself. Add up the cost of handles and sockets in both the 3/8" and 1/2" series. Subtract the price of Nuggets. The difference is your BIG SAVING!

GRAPH OF LIFE SPAN

NUGGET WRENCH

ORDINARY WRENCH

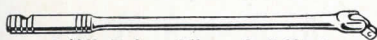


1/2" Drive socket for 3/4" hex nut . . . Occupies space of 1.118 cubic in.

7/16" Drive socket for 3/4" hex nut . . . Occupies only .796 cubic in.

YOU WORK FASTER!

Nuggets get in where 1/2" drive wrenches can't go; yet do all work of 3/8" drive wrenches. No time lost fitting sockets on wrong handle drives. All sockets and handles have ONE DRIVE!



1/2" Drive Hinged Offset
Weighs 1 lb. 12 oz.



7/16" Drive Hinged Offset
Weighs Only 1 lb.

Nuggets Slash Minutes off Every Job... You Earn More!

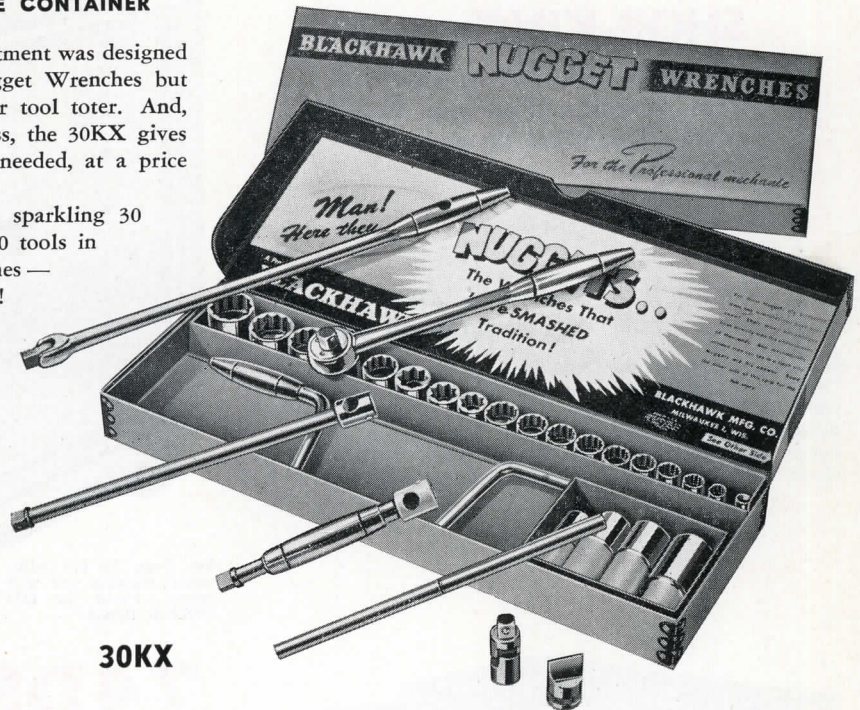
NUGGET
7/16"
DRIVE

30KX 30 NUGGET SOCKET WRENCHES IN FIBRE CONTAINER

This special, full-utility Nugget assortment was designed for those mechanics who want Nugget Wrenches but already have a complete tool box or tool totter. And, for those just starting in the business, the 30KX gives them all the basic socket wrenches needed, at a price that meets every pocketbook.

Look at the amazing 30KX—these sparkling 30 Nugget Wrenches do the work of 50 tools in the 3/8" and 1/2" drive wrench lines—a sensational saving for you in itself!

Yes, Sir! Nuggets are rate-busting wrenches—they not only save you money on initial wrench investment, but more important, NUGGETS HELP YOU EARN MORE! Try 'em—you'll buy 'em! Packed in sturdy fibre box—18"x6"x2". Net wt., 9 lbs.



SEE NUGGET FEATURES
ON PAGES 4 TO 15

30KX

CONTENTS OF 30K, 30KX and 49K NUGGET SETS

Item No.	Description	30K	30KX	49K	Item No.	Description	30K	30KX	49K	Item No.	Description	30K	30KX	49K
HANDLES					Long Type					Univ. Jt. Sockets				
39965	.035 x 1/4" Sc. Driver bit	—	—	1	35114	1/8"	1	1	1	35314	1/8"	—	—	1
39966	.040 x 1/2" Sc. Driver bit	—	—	1	35116	1/2"	1	1	1	35316	1/2"	—	—	1
39976	Grip Hndl.	—	—	1	35118	3/8"	1	1	1	35318	3/8"	1	1	1
39978	Univ. Joint	1	1	1	35119	1/2"	1	1	1	35320	5/8"	—	—	1
39979	Drag Link Socket	1	1	1	35120	5/8"	1	1	1	35322	1 1/8"	—	—	1
39983	6" Ext.	1	1	1	35121	1 1/8"	1	1	1	35324	3/4"	—	—	1
39985	15" Hinged Offset	1	1	1	35122	1 1/2"	1	1	1	35326	1 1/8"	1	1	1
39986	Hdl. Bar	1	1	1	35124	3/4"	1	1	1	35328	7/8"	1	1	1
39990	10" Ext.	1	1	1	35126	1 1/8"	1	1	1	35330	1 1/8"	—	—	1
39997	Ratchet	1	1	1	35128	7/8"	1	1	1	35332	1"	1	1	1
39999	16 1/2" Brace	1	1	1	35130	1 1/8"	1	1	1	35336	1 1/8"	—	—	1
SOCKETS					35132	1"	1	1	1	Double Square				
Double Hexagon					35134	1 1/8"	1	1	1	35212	3/8"	—	—	1
*35110	5/16"	1	1	1	Univ. Jt. Sockets					35214	1/2"	—	—	1
35112	3/8"	1	1	1	35216	1/2"	1	1	1	35416	1/2"	—	—	1
*Single Hex Socket					35218	5/8"	1	1	1	35418	3/8"	—	—	1
					35220	5/8"	1	1	1	35420	5/8"	—	—	1
					35224	3/4"	—	—	1	35422	1 1/8"	—	—	1
										35424	3/4"	—	—	1

Sockets in the above 3 sets have the famous rate busting 7/16" double-duty drive plus the patented "LOCK-ON"

and thumb-release features. All are chromium plated with flawless brilliance. Handles are torpedo-shaped.

Set 30K and 49K in Metal Case No. 19574—Set 30KX Packed in Fibre Box.

SHOP-KING MASTER ASS'TS

FOR 'RATE-BUSTING MECHANICS'



SHOP-KING

Master Assortments of Nuggets, Nuggies, Box-Type & Hexite Open-End Wrenches

74DD SHOP-KING ASS'T. IN THE POPULAR DD BENCH

Be King of the Shop! Own the big, complete 74DD "rolling workshop on wheels"—filled with the outstanding Shop-King wrench assortment. It's the super deluxe equipment of the industry. Has 3½ sq. ft. of bench space—sliding doors lock front. 74DS includes wrenches described and shown on page 11.



74R SHOP-KING ASSORTMENT IN THE "TREASURE CHEST"

Here's a compact Shop-King Assortment for professional service—in the beautifully finished Blackhawk "Treasure Chest"! 74R is attractively priced. Famous modern R case has three big drawers—hinged top and front panel—is constructed from heavy gauge steel; R Case described on page 35. See contents, page 11.



See Page 38 for additional benefits you will enjoy from the DD Wrench Bench!

74DS SHOP-KING ASSORTMENT IN THE DS "RED ROVER" STAND

Scoot your tools right up to the job! Let the big, smart-looking "Red Rover" serve you with professional efficiency, utility—with every wrench within easy grasp. Famous, time-saving DS stand has five, big drawers—rubber matting in top tray—sturdy doors that lock up at night—non-metallic wheels and other benefits as featured on page 37. Wrenches in 74DS are listed on Page 11.



FOR PROFESSIONAL MECHANICS

These practical assortments were selected by Blackhawk engineers following extensive research in automotive, aviation, industrial, tractor, and other service fields! Professional mechanics want only *useful* wrenches in their master assortment. Hence, you'll find no trick "extras", or unnecessary tools in a Shop-King Assortment!

SAVINGS CREATED BY NUGGETS help you own the best in cases or stands! Shop-King Assortments bring you *exclusive*, double-duty drive Nuggets—the wrenches that eliminate the need for costly duplication of $\frac{3}{8}$ " and $\frac{1}{2}$ " drive wrenches! Read the story of NUGGETS on pages 6 and 7.

HEXITE STEEL CREATES BIG BENEFITS FOR YOU

Hexite steel DOES MORE than give you a strong wrench! Hexite gives you lighter wrenches that reduce fatigue—save energy; thinner wrenches that get in tight spots—operate faster; slimmer wrenches that improve your work; superbly balanced wrenches that increase your work-speed; wrenches that have comfortable handles and welcomed beauty!



LESS BULK is required for needed strength. Hexite permits famous double-duty drive of Nuggets, plus benefits shown below.



HEXITE open-Ends are superior to anything in the field! Red dotted line shows cumbersome size of ordinary open-ends. See pages 28-29.



NUGGETS are the thinnest, lightest, toughest $\frac{1}{4}$ " drive wrenches made.

CONTENTS OF 74DD, 74DS, 74R

(Each set includes *one* of each wrench listed below)

Catalog Nos. & Description

$\frac{1}{4}$ " Square Drive Series

- 24995 Grip Handle
- 24996 Extension
- 24997 Handle Bar
- 24999 Hinged Offset
- N-5 Plastic Case

Single Hex Sockets

- | | |
|------------------------|------------------------|
| 21006 $\frac{3}{8}$ " | 21010 $\frac{1}{2}$ " |
| 21007 $\frac{7}{16}$ " | 21011 $\frac{3}{4}$ " |
| 21008 $\frac{1}{2}$ " | *21012 $\frac{3}{8}$ " |
| 21009 $\frac{9}{16}$ " | *21014 $\frac{1}{4}$ " |

* Double Hex

$\frac{7}{16}$ " Square Drive Series

- 39965 .035x $\frac{1}{4}$ " Screw Driver
- 39966 .040x $\frac{1}{4}$ " Screw Driver
- 39976 Grip Handle
- 39981 18" Extension
- 39982 3" Extension
- 39983 6" Extension
- 39985 15" Hinged Offset
- 39986 Handle Bar
- 39990 10" Extension
- 39996 Two-length Ratchet Speeder

Dbl. Hex Univ. Joint Sockets

- | | |
|------------------------|-----------------------|
| 35412 $\frac{3}{8}$ " | 35420 $\frac{5}{8}$ " |
| 35414 $\frac{7}{16}$ " | 35422 $\frac{3}{4}$ " |
| 35416 $\frac{1}{2}$ " | 35424 $\frac{3}{4}$ " |
| 35418 $\frac{1}{2}$ " | |

Double Hex Sockets

- | | |
|-------------------------|------------------------|
| *35110 $\frac{3}{8}$ " | 35124 $\frac{3}{4}$ " |
| *35111 $\frac{7}{16}$ " | 35126 $\frac{1}{2}$ " |
| 35112 $\frac{3}{8}$ " | 35128 $\frac{7}{8}$ " |
| 35114 $\frac{7}{16}$ " | 35130 $\frac{1}{2}$ " |
| 35116 $\frac{1}{2}$ " | 35132 $1\frac{1}{8}$ " |
| 35118 $\frac{9}{16}$ " | 35134 $1\frac{1}{8}$ " |
| 35120 $\frac{5}{8}$ " | 35136 $1\frac{1}{8}$ " |
| 35122 $\frac{1}{2}$ " | 35140 $1\frac{1}{4}$ " |

*Single Hex

- Long Thin Deep Double Hex Spark Plug Sockets
- 35314 $\frac{7}{8}$ "
- 35316 $\frac{1}{2}$ "

Long Single Hex Aero-Type Spark Plug Sockets

- | | |
|-----------------------|------------------------|
| 35518 $\frac{3}{8}$ " | 35526 $\frac{1}{2}$ " |
| 35520 $\frac{7}{8}$ " | 35528 $\frac{1}{2}$ " |
| 35522 $\frac{1}{2}$ " | 35530 $\frac{1}{2}$ " |
| 35524 $\frac{3}{4}$ " | 35532 $1\frac{1}{8}$ " |

Open-End, Box-Type Wrenches

Miniature Half & Half Combination Wrenches

- | | |
|------------------------|-----------------------|
| 15641 $\frac{3}{8}$ " | 15644 $\frac{5}{8}$ " |
| 15642 $\frac{1}{2}$ " | 15645 $\frac{1}{2}$ " |
| 15643 $\frac{9}{16}$ " | 15646 $\frac{3}{8}$ " |

Hexite Open-Ends

- | |
|--|
| 4033C $\frac{1}{8}$ "x $\frac{1}{8}$ " |
| 4721 $\frac{1}{8}$ "x $\frac{3}{8}$ " |
| 4725 $\frac{1}{8}$ "x $\frac{1}{2}$ " |
| 4727 $\frac{3}{8}$ "x $\frac{3}{8}$ " |
| 4730A $\frac{1}{2}$ "x $\frac{1}{2}$ " |
| 4731A $\frac{3}{4}$ "x $\frac{3}{8}$ " |

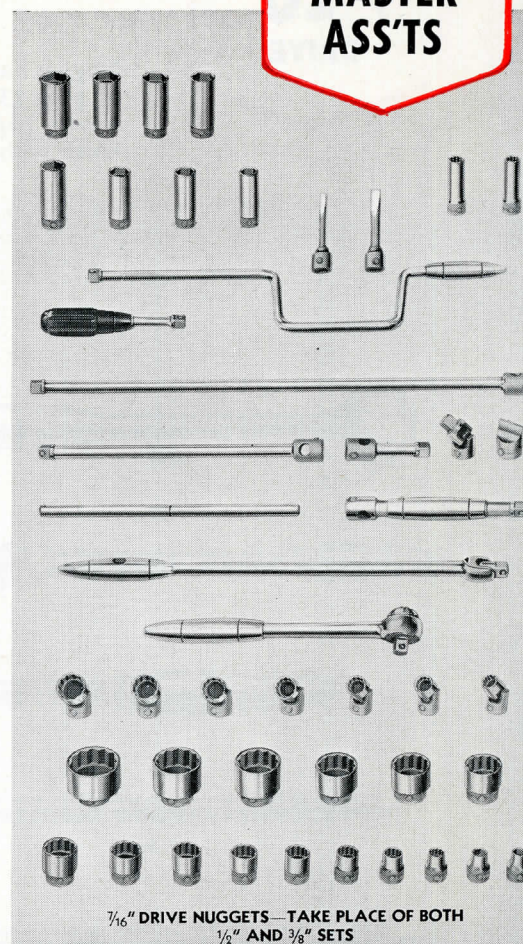
Short Dbl. Offset Box-Type Wrenches

- | |
|--|
| 15612 $\frac{3}{8}$ "x $\frac{7}{8}$ " |
| 15613 $\frac{1}{2}$ "x $\frac{9}{8}$ " |
| 15614 $\frac{5}{8}$ "x $\frac{1}{2}$ " |

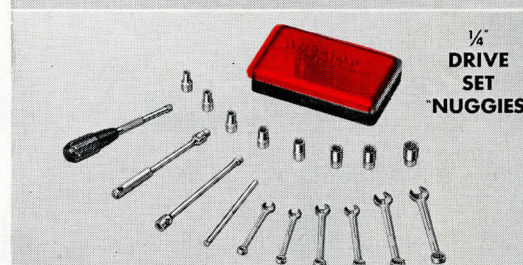
Long Dbl. Offset Box-Type Wrenches

- | |
|--|
| 15625 $\frac{3}{4}$ "x $\frac{3}{8}$ " |
| 15626 $\frac{1}{2}$ "x $\frac{7}{8}$ " |
| 15627 $\frac{1}{2}$ "x $\frac{1}{2}$ " |

SHOP-KING MASTER ASS'TS



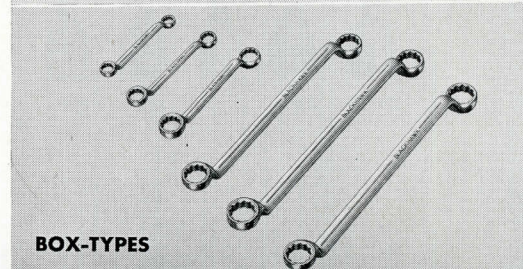
$\frac{7}{16}$ " DRIVE NUGGETS—TAKE PLACE OF BOTH $\frac{1}{2}$ " AND $\frac{3}{8}$ " SETS



$\frac{1}{4}$ " DRIVE SET NUGGETS



HEXITE OPEN-END

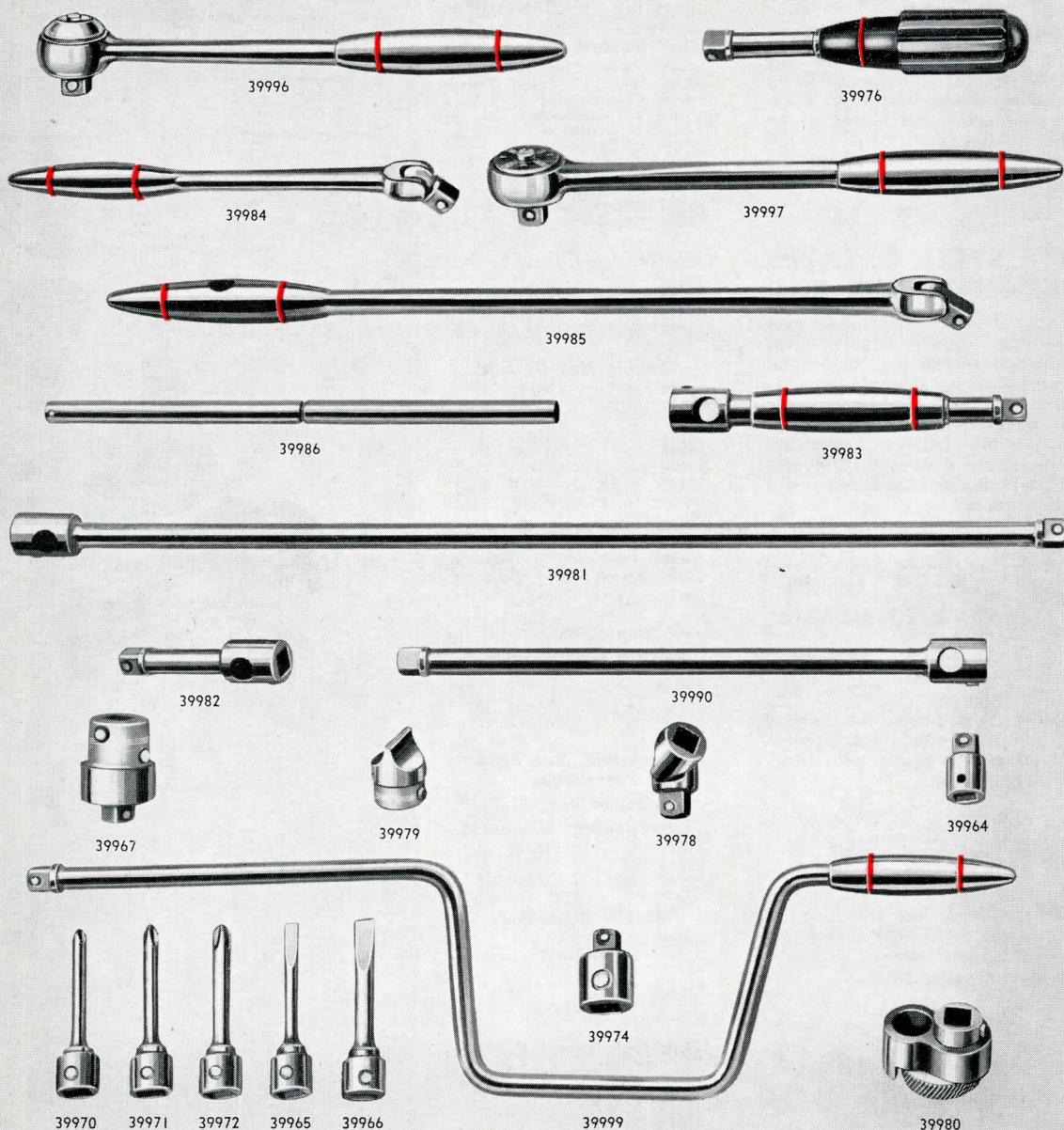


BOX-TYPES

7/16"
DRIVE

NUGGET HANDLES AND ATTACHMENTS

Nugget handles and attachments are shown below and described on page 13. Nugget sockets are pictured on page 14 and Nugget sets on pages 8-11. Nuggets are completely polished chromium finish with famous Thumb-Release "Lock-On" feature.



NUGGET HANDLES AND ATTACHMENTS

7/16"
DRIVE

Wrenches Pictured on Page 12 are Listed Below in Numerical Order

39964 ADAPTOR

7/16" male "Lock-on" drive and 3/8" female. Permits use of 7/16" drive Nugget sockets with 3/8" drive handles.

34964 ADAPTOR

3/8" male end and 7/16" female. Permits use of 3/8" square drive sockets with double-duty 7/16" sq. drive Nugget handles. (Illustrated on page 18 and also listed on page 19.)

39974 ADAPTOR

Has 7/16" male "Lock-On" drive and 1/2" female. Permits 7/16" drive Nugget sockets to be used with 1/2" drive handles.

49974 ADAPTOR

Has 1/2" male and 7/16" female opening. Used with 1/2" drive sockets and 7/16" drive Nugget handles. (Illustrated on page 20 and also listed on page 21.)

39965 SCREW DRIVER BIT

Is 3 1/4" long and has a .035" x 1/4" blade.

39966 SCREW DRIVER BIT

Has a blade of .040" x 11/32" and is 3 1/4" long.

39967 RATCHET ADAPTOR

Used between handle and socket to make reversible ratchet combination. "Nugget" Torkflash and 39967 adaptor make a popular set-up for close-quarter efficiency and speedier work. Also used with offsets, speeders, and T-handles. Has same features as found in regular Blackhawk "Broached-Tooth" Ratchets. Outside diameter is 1-3/16", overall length, 1-15/16". Has 18 hardened teeth.

39968 SHORT "TORKFLASH" TENSION INDICATOR

See page 38 for complete listing or catalog 46-T.

39970 No. 1 PHILLIPS, 39971 No. 2 PHILLIPS, & 39972 No. 3 PHILLIPS SCREW DRIVER BITS

Popular for many Automotive and Industrial assembly and service jobs. Fit popular sizes of Phillips head screws. Each is 3 1/4" long.

39975 LONG "TORKFLASH" TENSION INDICATOR

See page 38 for complete listing or catalog 46-T.

39976 INSULATED GRIP HANDLE

Ideal for fast twirling or preliminary tightening. Handle is lightweight. Shockproof grip assures firm grasp. Wipes free of grease or dirt. Length is 5 5/8".

39978 UNIVERSAL JOINT

Will operate in any desired position and at 90° angle. Friction springs prevent "flopping."

39979 SCREW DRIVER BIT AND TIE ROD ATTACHMENT

Blade is strong enough for heavy twists. Is 13/16" wide, 1/8" thick, 1-5/16" length.

39980 STUD SETTER EXTRACTOR

Takes 1/4" to 5/8" studs. Special design eliminates unnecessary parts. Gear wheel is forced into contact with stud by wrench handle action. Teeth are milled and heat treated, and provide "pipe wrench" grip on studs. 39980 works with gear wheel flat against head or block.

39981 EXTENSION BAR

18" length makes this sturdy extension bar suitable for maximum reach. Cross drilled to make T or L wrench when used with 39986 handle bar. Stock diameter 15/32".

39982 EXTENSION BAR

Length 3". Makes a sliding offset when used with 39986 handle bar. Has 15/32" stock diameter.

39983 EXTENSION BAR WITH REVOLVING GRIP

Streamline center grip twirls free—wipes clear of dirt and grease. 15/32" stock diameter. Length 6".

39984 SHORT HINGED OFFSET

Just the size for limited working space. 7/16" stock diameter and 7/2" long. Slip-proof handle design.

39985 HINGED OFFSET

Has 14 5/8" length. Stock diameter, 1/2". Slip-proof grip.

39986 HANDLE BAR

Used with hinged offsets, extensions, etc., to make T or L combinations. Stop button on one end to prevent accidental disengagement. Has center groove to engage spring-backed ball found in cross holes in extensions and offsets. Length 9" and stock diameter 1/2".

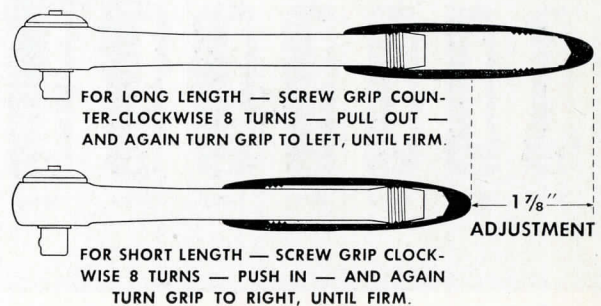
39990 EXTENSION BAR

Medium length of 10". Used with handle bar No. 39986 for T or L combinations. Has stock diameter of 15/32".

39996 TWO-LENGTH REVERSIBLE MECHANICAL RATCHET

A unique two-length ratchet wrench—handle adjusts to necessary working length. Special design eliminates need to remove handle. Simple adjustment shortens ratchet to 7 3/8" or lengthens ratchet to 9 1/4". Sketch, right, shows how handle adjusts. No. 39996 has new double pawls for faster action and shorter bites. Slim shank offers true balance throughout ratchet. Has small head diameter of 1-9/32". Slip-proof handle design.

HOW No. 39996 TWO-LENGTH RATCHET WORKS



39997 REVERSIBLE "FREE-WHEELING" RATCHET

Length, 9 5/8". Head diameter, 1-15/32". Instantly reversible without removing socket . . . complete utility on every swing . . . no teeth . . . no backlash . . . noiseless operation. Slip-proof grip.

39999 SPEEDER HANDLE

Really fast for twirling sockets . . . has 4" sweep. Is 16 3/8" long and has a slim shank of 13/32". Blackhawk's design cuts wear and prevents sticking. Comfortable torpedo-styled handle grip.

**SEE 7/16" NUGGET SOCKETS ON
NEXT PAGE → - - →**

7/16"
DRIVE

NUGGET SOCKETS



For use with Nugget handles and attachments illustrated and described on the two preceding pages, 12 and 13.

DOUBLE HEXAGON				DOUBLE HEX UNIVERSAL JT.		DOUBLE SQ.		LONG AERO-TYPE SINGLE HEX		LONG DOUBLE HEX	
No.	Size	No.	Size	No.	Size	No.	Size	No.	Size	No.	Size
*35110	5/8"	35128	7/8"	35412	3/8"	35212	3/8"	35518	9/16"	35314	7/16"
*35111	11/16"	35130	15/16"	35414	1/2"	35214	1/2"	35520	5/8"	35316	1/2"
35112	3/8"	35132	1"	35416	1/2"	35216	1/2"	35522	11/16"	35318	9/16"
35114	1/8"	35134	1 1/16"	35418	3/4"	35218	3/4"	35524	3/4"	35320	5/8"
35116	1/2"	35136	1 1/8"	35420	5/8"	35220	5/8"	35526	13/16"	35322	11/16"
35118	9/16"	35140	1 1/4"	35422	11/8"	35224	3/4"	35528	7/8"	35324	3/4"
35119	5/8"	†35199	1 1/8"	35424	3/4"			35530	15/16"	35326	13/16"
35120	5/8"							35532	1"	35328	7/8"
35121	11/16"									35330	15/16"
35122	11/16"									35332	1"
35124	3/4"									35336	1 1/8"
35126	11/16"										

*Single hex.

†Special Ford Connecting Rod Socket

(Have synthetic rubber inserts to cushion spark plug insulators from shock or twist.)

NUGGET WRENCH SETS

7/16"
DRIVE

52W TRACTOR AND CONSTRUCTION WRENCH SET

... includes Nuggets,
Heavy-Duty Socket
Wrenches, Open-Ends,
and Box-Types

The 52-W represents the most complete tractor and construction equipment wrench set in the field today! Every tool in this select set is needed to do a thorough job of service.

Includes the famous double-duty drive Nugget Wrenches. Nugget Wrenches eliminate the cost of duplication of 3/8" and 1/2" drive wrenches found in ordinary wrench sets—creating big savings for you!

The profit-making 52-W Set contains Tappet wrenches, Hexite Open-Ends, Box-Types, Nuggets and 3/4" drive sockets and handles—all packed in a brilliant red, streamlined sturdy W case that has 5 drawers, convenient tote tray and ample space for extras.

W Case is 27" long, 12 5/8" wide, and 10 1/8" high.



Contents of 52W

7/16" Sq. Dr. Nugget Handles and Attachments 39965 —.035"x1/4" Screw Driver 39966 —.040"x11/32" Screw Driver 39976 —Grip Handle 39978 —Universal Joint 39983 —6" Extension 39985 —15" Hinged Offset 39986 —Handle Bar 39990 —10" Extension 39996 —Ratchet Handle 39999 —16 1/2" Speeder		35118 — $\frac{9}{16}$ " 35120 — $\frac{5}{8}$ " 35122 — $\frac{11}{16}$ " 35124 — $\frac{3}{4}$ " 35126 — $\frac{13}{16}$ " 35128 — $\frac{7}{8}$ " 35130 — $1\frac{1}{8}$ " 35132 —1" 3/4" Sq. Dr. Handles 69987 —Ratchet Handle 69995 —8 1/2" Extension 69997 —18" Sliding Offset 3/4" Dbl. Hex Sockets 60034 — $1\frac{1}{8}$ " 60036 — $1\frac{1}{8}$ " 60040 — $1\frac{1}{4}$ "		60042 — $1\frac{5}{16}$ " 60048 — $1\frac{1}{2}$ " 60052 — $1\frac{5}{8}$ " 60054 — $1\frac{11}{16}$ " 60056 — $1\frac{3}{4}$ " 60060 — $1\frac{7}{8}$ " 60064 —2" Hexite Open Ends 4020 — $\frac{1}{4}$ "- $\frac{5}{16}$ " 4723 — $\frac{3}{8}$ "- $\frac{7}{16}$ " 4725B — $\frac{1}{2}$ "- $\frac{9}{16}$ " 4727 — $\frac{9}{16}$ "- $\frac{5}{8}$ " 4730A — $\frac{11}{16}$ "- $\frac{3}{4}$ " 4731A — $\frac{3}{4}$ "- $\frac{7}{8}$ " 4033C — $\frac{13}{16}$ "-1" 4039B — $1\frac{1}{4}$ "- $1\frac{5}{16}$ "		Tappet Wrenches (2 of each) 1090D — $\frac{1}{2}$ "- $\frac{9}{16}$ " 1092F — $\frac{5}{8}$ "- $\frac{11}{16}$ " 1094 — $\frac{3}{4}$ "- $\frac{7}{8}$ " Dbl. Offset Box-Type Wrenches 15612 — $\frac{3}{8}$ "- $\frac{7}{16}$ " 15623 — $\frac{1}{2}$ "- $\frac{9}{16}$ " 15624 — $\frac{5}{8}$ "- $\frac{11}{16}$ " 15625 — $\frac{3}{4}$ "- $\frac{7}{8}$ " 15626 — $\frac{13}{16}$ "- $\frac{3}{4}$ " 15627 — $\frac{13}{16}$ "-1" 15818 — $1\frac{1}{8}$ "- $1\frac{1}{4}$ " 15834 — $1\frac{1}{4}$ "- $1\frac{5}{16}$ "	
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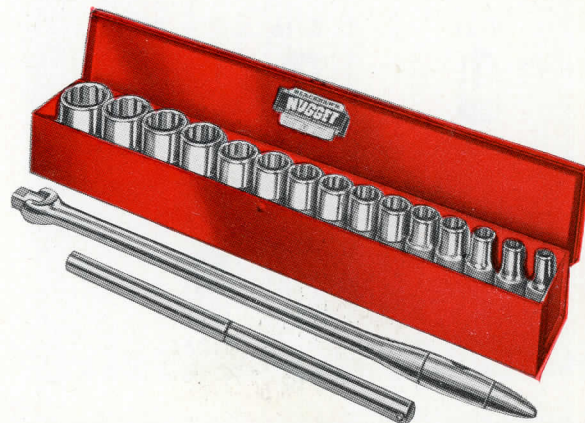
17K ASS'T OF DOUBLE-DUTY NUGGET WRENCHES

Popular 17-piece assortment—selected sockets with hinged offset and handle bar. A perfect wrench set for service stations, tire shops, maintenance departments, etc. Also serves as "on-the-spot" equipment for truck and bus fleets.

CONTENTS OF 17K

39985 —Hinged Offset 39986 —Handle Bar 35110 — $\frac{5}{16}$ " Sgl. Hex Skt. 35112 — $\frac{3}{8}$ " Dbl. Hex Skt. 35114 — $\frac{7}{16}$ " Dbl. Hex Skt. 35116 — $\frac{1}{2}$ " Dbl. Hex Skt. 35118 — $\frac{9}{16}$ " Dbl. Hex Skt. 35119 — $\frac{19}{32}$ " Dbl. Hex Skt. 35120 — $\frac{3}{8}$ " Dbl. Hex Skt.		35121 — $\frac{21}{32}$ " Dbl. Hex Skt. 35122 — $\frac{11}{16}$ " Dbl. Hex Skt. 35124 — $\frac{3}{4}$ " Dbl. Hex Skt. 35126 — $\frac{13}{16}$ " Dbl. Hex Skt. 35128 — $\frac{7}{8}$ " Dbl. Hex Skt. 35130 — $\frac{15}{16}$ " Dbl. Hex Skt. 35132 —1" Dbl. Hex Skt. 35134 — $1\frac{1}{16}$ " Dbl. Hex Skt.	
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T CASE (furnished in 17K) is 18 5/8" long, 2 7/8" wide, 1-15/16" high. Steel construction—enamelled "Blackhawk Red".



1/4"
DRIVE

nuggies

EXTRA - SMALL SOCKET WRENCHES

Blackhawk's Midget Wrenches—Called "NUGGIES"—are *outstanding* in their class! Polished chromium plated "Nuggies" are smaller, trimmer, and better balanced. They are designed, produced, and finished with the same care given to all Blackhawk Wrenches. "Nuggie" sockets are broached sharp and clean. These glistening 1/4" square drive handles have a friction ball built into the drive end, to grip sockets firmly.

24991 REVERSIBLE MECHANICAL RATCHET—This midget ratchet is only 4 1/2" long. Its tiny head has a diameter of 3/4". Made with the same care and precision of large Blackhawk ratchets in the famous "broached tooth" design. Its teeth are broached into the alloy forging for fine action and great strength. Wedge action equalizes strain within the head. Instant reverse.

24995 GRIP HANDLE—Has Shock-proof colored plastic grip with comfortable, efficient knurls. Steel shank has longitudinal knurling to prevent fingers from slipping when exerting twirling pressure. 5 1/8" long.

24996 EXTENSION—Head has 1/4" square drive opening for assembly with ratchet, hinged offset or grip handle. Head is also cross drilled so that the No. 24997 handle bar can be inserted to make a T or L combination. Spring-backed ball in cross hole firmly grips handle bar combination. The No. 24996 extension is 5" long.

24997 HANDLE BAR—For insertion in cross-holes of the 1/4" square drive hinged offset or extension to make T or L combination. Center groove engages spring-backed ball in the cross holes—to make secure T combination. Handle bar has ball-stop to prevent slipping through cross holes. 4" long.

24999 HINGED OFFSET—Has same features which are built into larger Blackhawk hinged offsets—perfect balance—narrow hinge joint—thin throat—great strength—cross hole for use with handle bar. 5" long.

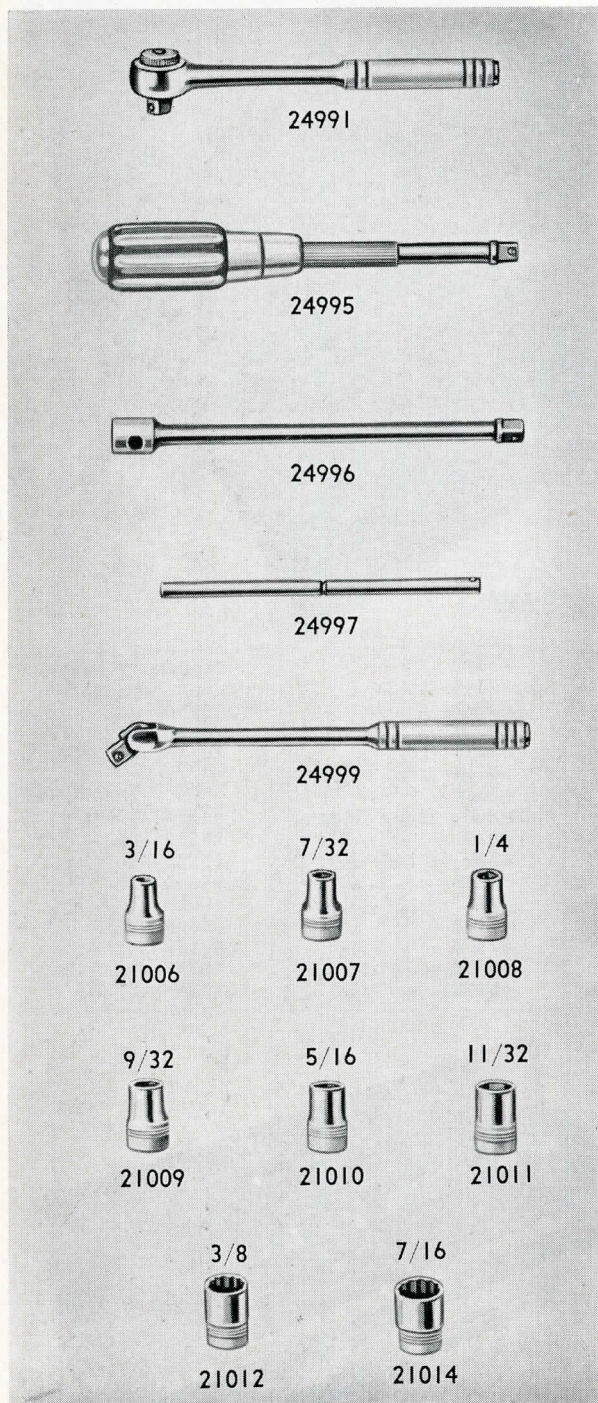
(SEE OPPOSITE PAGE FOR NUGGIE SETS)

SINGLE HEXAGON SOCKETS

No.	Socket Size	No.	Socket Size	No.	Socket Size
21006	3/16"	21008	1/4"	21010	5/16"
21007	3/8"	21009	9/32"	21011	11/32"

DOUBLE HEXAGON SOCKETS

No.	Socket Size	No.	Socket Size
21012	3/8"	21014	7/16"



nuggies

1/4"
DRIVE

EXTRA SMALL SOCKET WRENCHES

19ND SET OF SOCKET WRENCHES

19ND is a selected assortment of popular "NUGGIES"—includes sockets and handles pictured on page 16 and miniature half and halves listed on page 29. This is the most practical and popular 1/4" drive wrench set on the market. Users recommend it for carburetor, magneto, ignition, aviation work or wherever delicate assemblies must be serviced or produced. "Nuggies" are amazingly slim, strong, light and trim.

Miniature half and halves, openings of 7/32" to 3/8", are patterned after the famous streamlined Blackhawk-Armstrong Automotive "Hexite" Open-Ends.

CONTENTS OF 19ND

Handles	
24991—Ratchet	21011— $\frac{1}{32}$ " Sgl. Hex
24995—Grip Hdle.	21012— $\frac{3}{8}$ " Dbl. Hex
24996—Ext. Bar	21014— $\frac{1}{16}$ " Dbl. Hex
24997—Handle Bar	
24999—Hged. Offset	
Sockets	
21006— $\frac{3}{16}$ " Sgl. Hex	
21007— $\frac{7}{32}$ " Sgl. Hex	
21008— $\frac{1}{4}$ " Sgl. Hex	
21009— $\frac{5}{16}$ " Sgl. Hex	
21010— $\frac{3}{8}$ " Sgl. Hex	
Miniature Half & Half's	
	15641— $\frac{7}{32}$ "
	15642— $\frac{1}{4}$ "
	15643— $\frac{5}{16}$ "
	15644— $\frac{3}{8}$ "
	15645— $\frac{7}{16}$ "
	15646— $\frac{1}{2}$ "

19ND includes N-5 Plastic Case, and is shipped in a strong fibre container.

10ND SET OF SOCKET WRENCHES

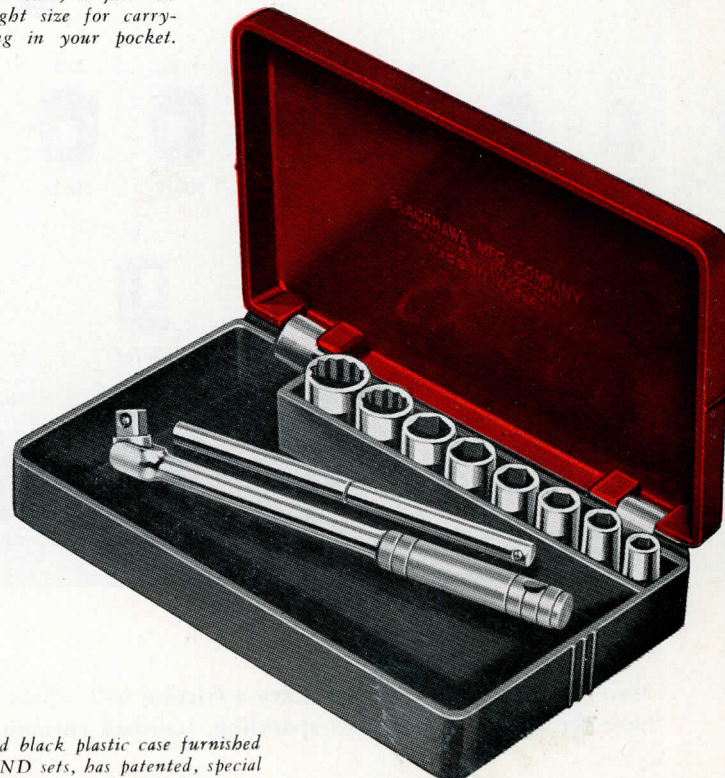
CONTENTS OF 10ND

Handles	
24997—Handle Bar	21008— $\frac{1}{4}$ " Sgl. Hex
24999—Hged. Offset	21009— $\frac{3}{8}$ " Sgl. Hex
	21010— $\frac{5}{16}$ " Sgl. Hex
	21011— $\frac{3}{4}$ " Sgl. Hex
	21012— $\frac{3}{8}$ " Dbl. Hex
	21014— $\frac{1}{16}$ " Dbl. Hex
Sockets	
21006— $\frac{3}{16}$ " Sgl. Hex	
21007— $\frac{7}{32}$ " Sgl. Hex	

10ND (includes N-5 Plastic Case) is shipped in a strong cardboard container.



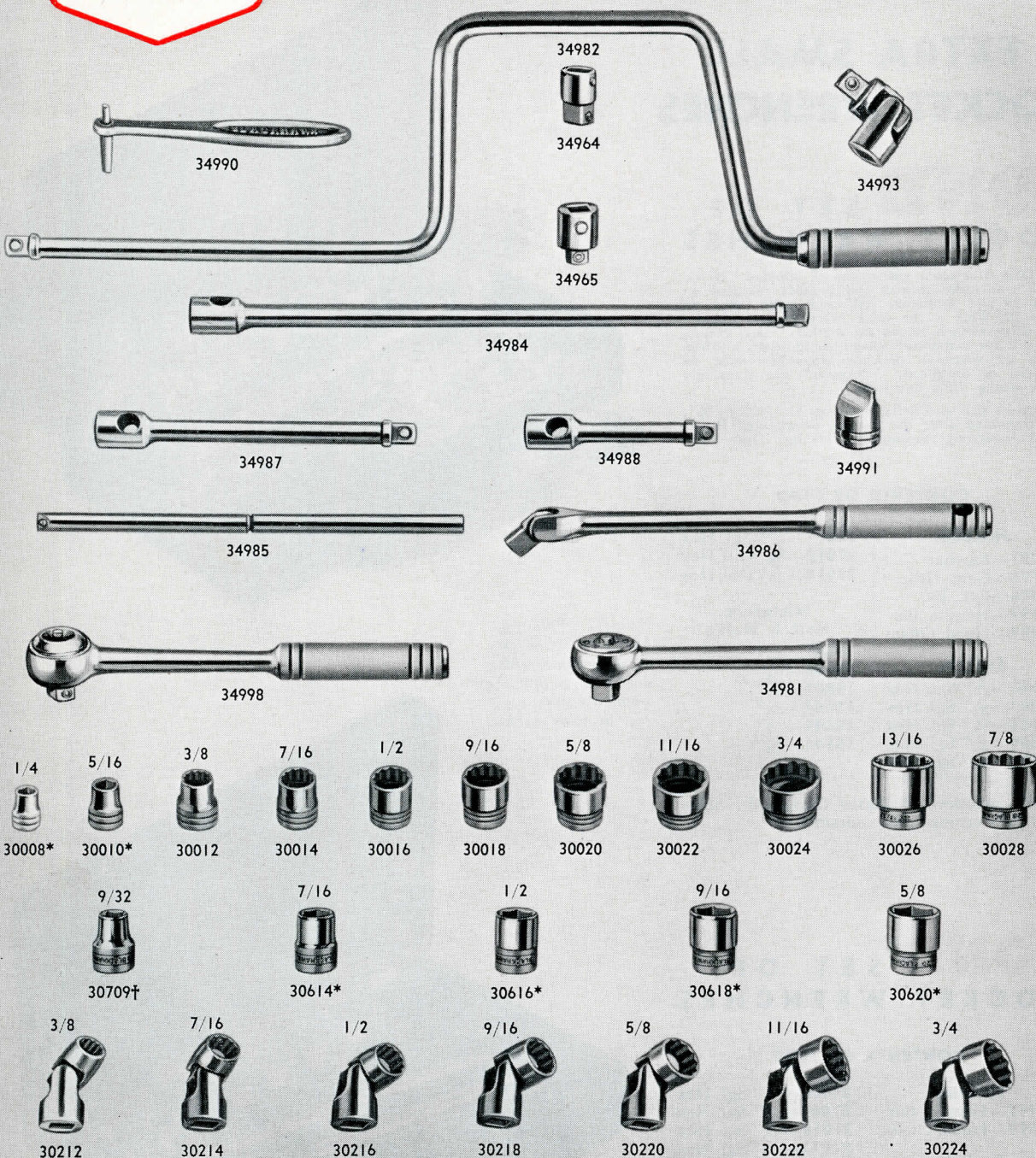
Colorful "Nuggies" box, with its shapely and non-scratching contours, is just the right size for carrying in your pocket.



The beautiful red and black plastic case furnished in the 19ND and 10ND sets, has patented, special hinges to prevent accidental opening of the cover.

3/8"
DRIVE

HANDLES AND SOCKETS



Male drives in the 3/8" series have a friction ball which grips the socket. Wrenches in this series have the famous Blackhawk sparkling, polished chromium-plating and satin-finish handle grips.

WRENCHES AND SOCKETS ILLUSTRATED ABOVE ARE DESCRIBED ON OPPOSITE PAGE

HANDLES, SOCKETS AND SETS

3/8"
DRIVE

Wrenches Pictured on Page 18 are Listed Below in Numerical Order

34964 ADAPTER—3/8" male end and 7/16" female. Permits use of 3/8" square drive sockets with double-duty 7/16" sq. drive Nugget handles.

34965 ADAPTER—3/8" male x 1/2" female. Permits use of 3/8" square drive sockets with 1/2" square drive handles.

34968 "TORKFLASH" TENSION INDICATOR—See p. 38.

34981 REVERSIBLE "FREE-WHEELING" RATCHET—7" long with head diameter of 1-3/16". Same features as found in larger "Free-Wheeling" ratchets. Instant reverse without removing socket. Positive balance.

34982 SPEEDER HANDLE—Has revolving end grip that cannot jam, stick or come off. Length, 16 1/8". Sweep, 3 3/8".

34984 EXTENSION BAR—10" long. Cross-hole has built-in friction ball to grip center groove in handle bar when making T and L combinations. 3/8" square female opening in one end for use with 3/8" drive handles.

34985 HANDLE BAR—7" long. Stock diameter 3/8". Makes T or L wrenches when used with an extension or hinged offset. This bar has a friction ball on one end to prevent accidental disengagement of combination. Groove in center engages the friction ball which is built into cross-hole of the extension—making an extra-firm T.

34986 HINGED OFFSET HANDLE—7 1/2" long. Grip is cross-drilled for use with handle bar.

34987 EXTENSION BAR—5" long. Cross-hole has built-in friction ball to grasp handle bar when making T or L combinations. 3/8" square female opening in one end for use with other 3/8" drive handles.

34988 EXTENSION BAR—3" long. Same as No. 34987 (above) but is shorter—making it a popular handle for use with the handle bar in sliding T combinations.

34990 RELEASE KEY—Used for releasing old-style 3/8" drive sockets from old-style 3/8" drive handles having spring-backed "Lock-On" plunger. Length, 4 1/8". Not required on current 3/8" drive series.

34991 TIE ROD ATTACHMENT & SCREW DRIVER BIT Length, 1". Has 11/16" x 1/16" blade.

34993 UNIVERSAL JOINT—Friction springs prevent "flopping" and hold the swivelling units in desired positions. Operates through a full 90° angle.

34998 REVERSIBLE MECHANICAL RATCHET—Has Blackhawk "Broached-Tooth" ratchet design. Instant reverse. 18 teeth. Length overall 7". Diameter of head 1-7/32". Has "Lock-On" plunger in its drive end.

SINGLE SQUARE SOCKET

No.	Size
*30709	3/2"

*For use in removing plugs from hydraulic transmissions

SINGLE HEXAGON SOCKETS

No.	Size	No.	Size
30008	1/4"	*30616	1 1/2"
30010	5/16"	*30618	9/16"
*30614	7/16"	*30620	5/8"

*19592 SET (4 Single Hex Sockets in Fibre Box)

DOUBLE HEXAGON SOCKETS

No.	Size	No.	Size
30012	3/8"	30022	1 1/8"
30014	1/2"	30024	3/4"
30016	1 1/2"	30026	1 3/8"
30018	1 1/8"	30028	7/8"
30020	5/8"		

DOUBLE HEXAGON UNIVERSAL JOINT SOCKETS

Operate through a full 90° angle. Internal friction springs hold the Universal Joint Socket in the position necessary to reach hard-to-get-at places.

No.	Size	No.	Size
30212	3/8"	30220	5/8"
30214	1/2"	30222	1 1/8"
30216	1 1/2"	30224	3/4"
30218	1 1/8"		

16QD SPECIAL WRENCH ASSORTMENT

A selection of practical and useful wrenches as pictured and listed on these two pages. For close work up to 3/4" nut sizes. Popular in automotive and industrial fields, aviation and other services involving compact assemblies. Similar to 26QD, pictured at right, but 16QD has 13 less wrenches.

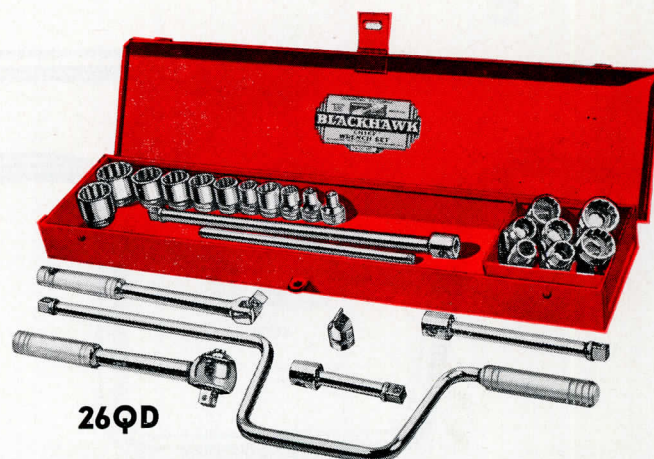
CONTENTS OF 26QD and 16QD

No.	Description	Tools in Set 26QD 16QD	No.	Description	Tools in Set 26QD 16QD
HANDLES					
Q	—Case	1 1	SGL. HEX SOCKETS		
34982	—Speeder	1 1	*30008	—1/4"	1 —
34984	—9 1/2" Ext.	1 1	*30010	—5/16"	1 —
34985	—Hdl. Bar	1 1	DBL. HEX SOCKETS		
34986	—Hdg. Offset	1 1	30012	—3/8"	1 1
34987	—5" Ext.	1 1	30014	—1/2"	1 1
34988	—3" Ext.	1 —	30016	—1 1/2"	1 1
34991	—Tie Rod Skt.	1 —	30018	—9/16"	1 1
34993	—Univ. Jt.	1 —	30020	—5/8"	1 1
34998	—Ratchet	1 1	30022	—3/4"	1 1
DBL. HEX. UNIV. JT. SKT.					
30212	—3/8"	1 —	30024	—3/4"	1 1
30214	—1/2"	1 —	30026	—1 1/8"	1 —
30216	—1 1/2"	1 —	30028	—7/8"	1 —
30218	—1 1/8"	1 —	*Single Hexagon		
30220	—5/8"	1 —			
30222	—1 1/8"	1 —			
30224	—3/4"	1 —			

Q CASE—Steel, enameled "Blackhawk Red." 20 1/8" long, 6 7/8" wide, 1-15/16" high.

26QD SUPER WRENCH ASSORTMENT

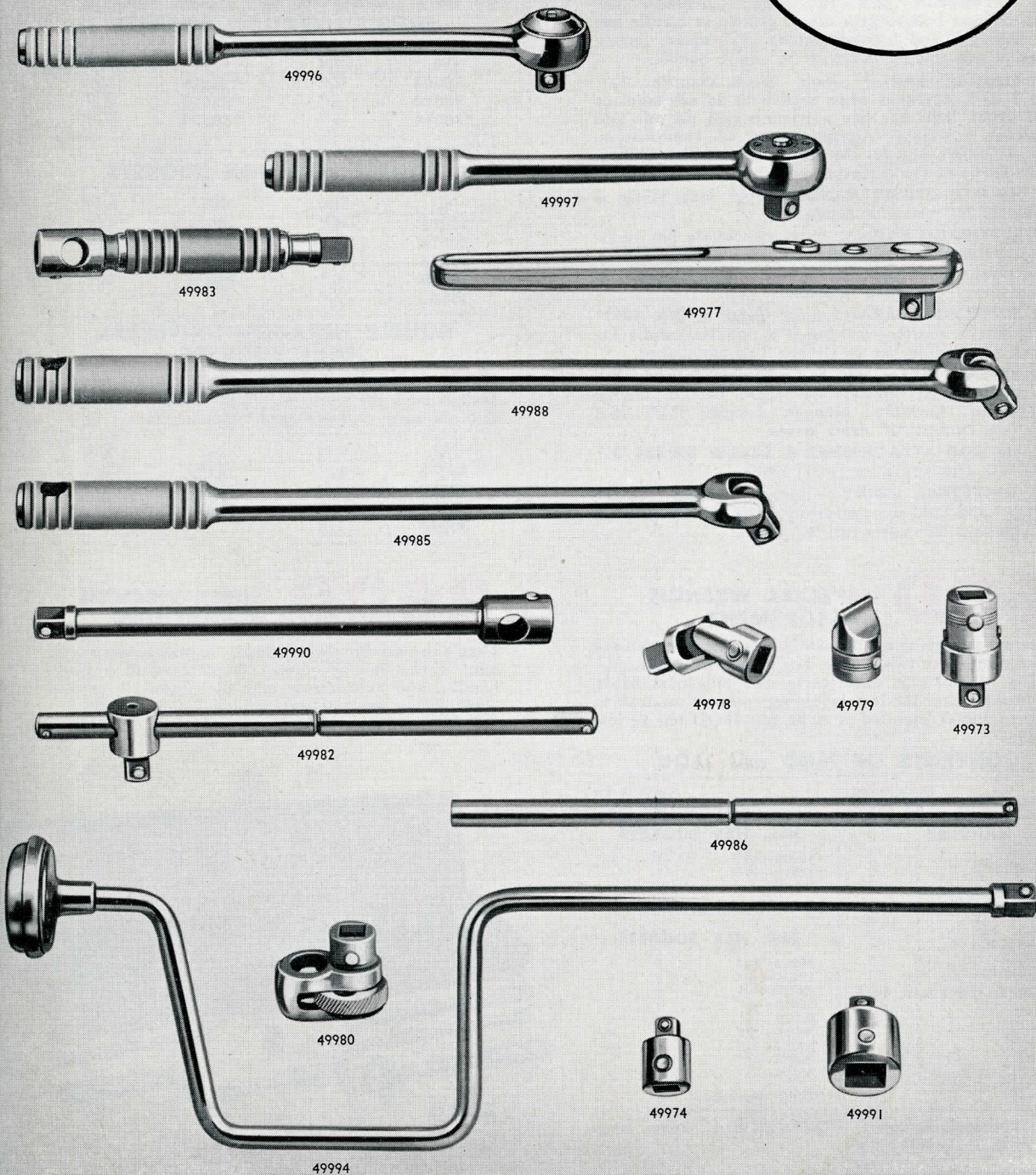
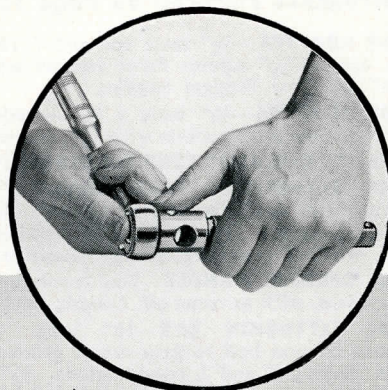
Here's the set for the mechanic or maintenance man who wants the 3/8" drive complete—with 9 basic handles and attachments and 18 sockets. A perfect combination for fast nut turning.



1/2"
DRIVE

HANDLES AND ATTACHMENTS

Patented "LOCK-ON" plungers and "THUMB-RELEASE" buttons are standard on all Blackhawk 1/2" square drive wrenches. Combinations disengage by simple pressure of thumb as illustrated, right. See pages 4 and 5 for important and exclusive features found *only* in the Blackhawk wrench line.



HANDLES AND ATTACHMENTS

Handles and attachments on opposite page are described below . . . see next 2 pages for Sockets and Sets

1/2"
DRIVE

49973 RATCHET ADAPTOR

Fits in between handle and socket to make reversible ratchet combination. Especially popular for use with Torque Indicators and to give close-quarter efficiency to speeders, offsets and T handles. Its instant-reverse ratchet mechanism is the same as regular Blackhawk "Broached-Tooth" ratchets. Has an outside diameter of only 1-5/16" and an overall length of 2-7/16". It has 18 sturdy teeth.

49974 ADAPTOR

Has 1/2" male and 7/16" female opening. Used with 1/2" drive sockets and 7/16" drive Nugget handles.

49975 "TORKFLASH" TENSION INDICATOR

See page 38 for special listing.

49977 MECHANICAL RATCHET

Popular item for quantity requirements. 10" long. Instant reverse. Stamped housing of heavy gauge steel.

49978 UNIVERSAL JOINT

Operates through a full 90° angle. Friction springs prevent "flopping" and hold this universal joint in desired positions.

49979 SCREW DRIVER BIT AND TIE ROD ATTACHMENT

Is 1 1/2" long. Has 15/16" x 7/64" blade.

49980 STUD SETTER AND EXTRACTOR

Handles 1/4" to 3/4" studs. Simplified design with only two parts—provides "pipe wrench" grip on studs. Gear is forced into contact by handle action. Teeth are milled and heat treated.

49982 SLIDING OFFSET

Makes T or L combinations. Stops, at each end of bar, prevent sliding head from coming off. Bar has center groove which is engaged by spring-backed ball in head—to make a firm T. This spring-backed ball holds the head in other positions as well. Handle 10 7/8" long, has 9/16" stock diameter.

49983 SHORT EXTENSION WITH REVOLVING GRIP

Center grip twirls freely. 5/8" stock diameter. 5 1/2" long.

49985 MEDIUM HINGED OFFSET

Has 5/8" stock diameter. 15" long. See 49988 hinged offset for complete description.

49986 HANDLE BAR

Has center groove to make T or L wrenches in combination with hinged offsets, extensions, etc., to give additional leverage. Has stop button on one end to prevent accidental disengagement. 9/16" stock diameter. 10 7/8" long.

49988 HINGED OFFSET

Length, 18". Full length gives maximum leverage. Cross hole for No. 49986 handle bar to make T or L combination. Narrow throat—trim appearance—and equal balance. Bored out handle permits use of 49986 handle bar to give greater handle length and increased leverage.

49990 EXTENSION BAR

10" long. Cross drilled to make T or L wrench when used with handle bar. 9/16" stock diameter.

49991 ADAPTOR FOR USE WITH 3/4" SQUARE DRIVE HANDLES

Has 1/2" male "LOCK-ON" drive and 3/4" female. For use with 1/2" drive sockets and 3/4" drive handles and attachments.

49994 SPEEDER HANDLE

19" long. Has 11" shank, 4 3/4" sweep and 1/2" stock diameter. The comfortable ball-end grip is locked to the handle and cannot come off. Hardened sleeve cuts down wear and prevents sticking.

49997 REVERSIBLE "FREE-WHEELING" RATCHET

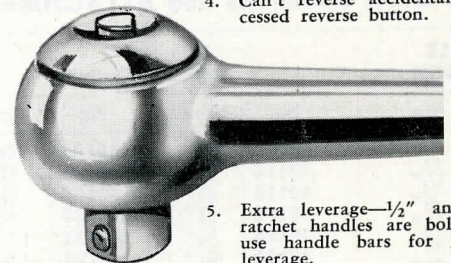
10 1/2" long. Diameter of head, only 1 5/8". This famous Blackhawk "free wheeling" ratchet has been service-proved by thousands of users. Has instant reverse—full utility on every swing—no teeth—no backlash—noiseless operation.

NEW REVERSIBLE "BALL-HEAD" TYPE MECHANICAL RATCHET . . . 49996

10 1/2" long. Small, compact head has diameter of only 1-7/16". Has sturdy Blackhawk "broached-tooth" design. Reverses instantly without removing socket.

Get All These Features At No Extra Cost With the New BALL-HEAD RATCHET

1. Smallest head—only 1-7/16" dia. on 1/2" drive wrench.
2. Strongest construction—machined from one solid piece, alloy steel, double ratchet pawls, engage simultaneously.
3. Fine action—32 teeth, hot broached on inside diameter of head.
4. Can't reverse accidentally—recessed reverse button.

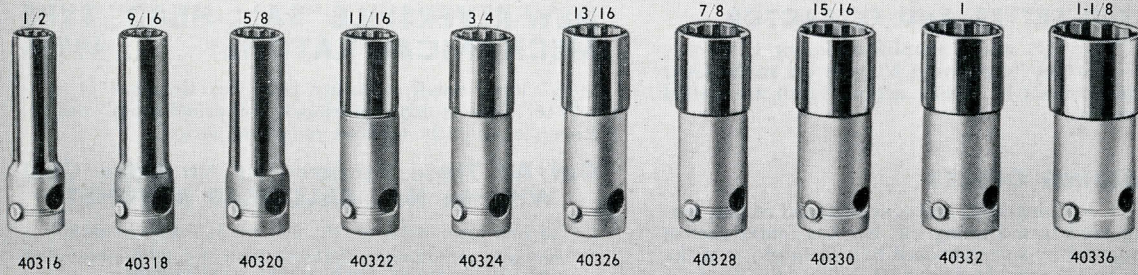
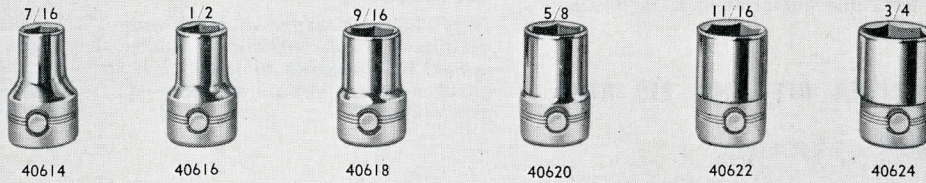
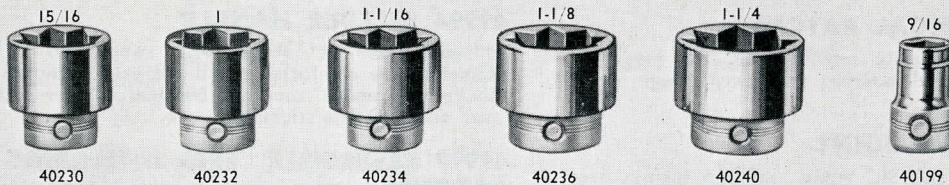
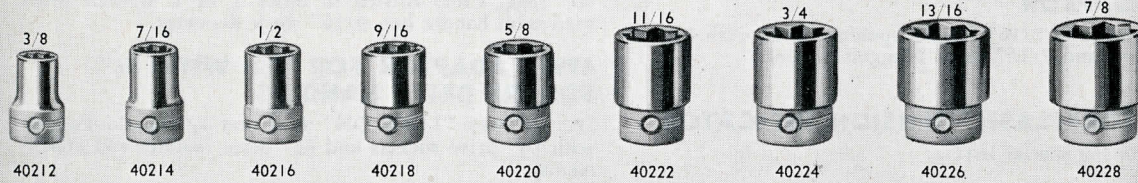
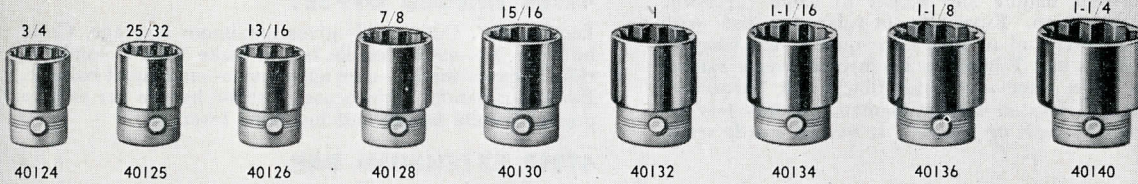
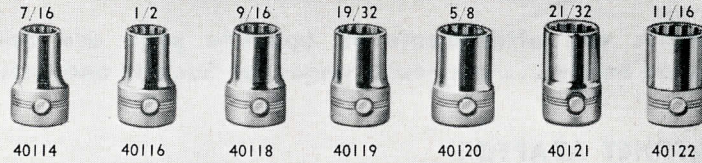


5. Extra leverage—1/2" and 3/4" ratchet handles are bolted to use handle bars for greater leverage.
6. Easy maintenance—removable snap ring makes all internal parts easy to clean and lubricate.
7. Fully enclosed mechanism protects against grit and grime.
8. Full polished chrome plate—makes you proud to own one.

Your Blackhawk distributor has a complete display of these modern ball-head ratchets.

1/2" DRIVE

STANDARD SERIES SOCKETS



FOR USE WITH HANDLES and ATTACHMENTS ILLUSTRATED and DESCRIBED ON PAGES 20-21

SINGLE HEXAGON

No.	Size
*40199	9/16"
†40614	7/16"
40616	1/2"
40618	9/16"
40620	5/8"
40622	11/16"
40624	3/4"

†Fits Cadillac connecting rods.
Set No. 19593 contains one each of above 6 sockets packed in strong cardboard box.

*40199—9/16" Single Hexagon with extra thin wall. Socket for use with Ford connecting rods.

DOUBLE HEXAGON

No.	Size	No.	Size
40114	7/16"	40125	35/64"
40116	1/2"	40126	13/16"
40118	9/16"	40128	7/8"
40119	19/32"	40130	15/16"
40120	5/8"	40132	1"
40121	21/32"	40134	1 1/16"
40122	11/16"	40136	1 1/8"
40124	3/4"	40140	1 1/4"

DOUBLE SQUARE

No.	Size	No.	Size
40212	3/8"	40226	1 1/8"
40214	7/16"	40228	7/8"
40216	1/2"	40230	9/16"
40218	9/16"	40232	1"
40220	5/8"	40234	1 1/16"
40222	11/16"	40236	1 1/8"
40224	3/4"	40240	1 1/4"

Set No. 19594 contains one of each above 14 Sockets packed in sturdy carton.

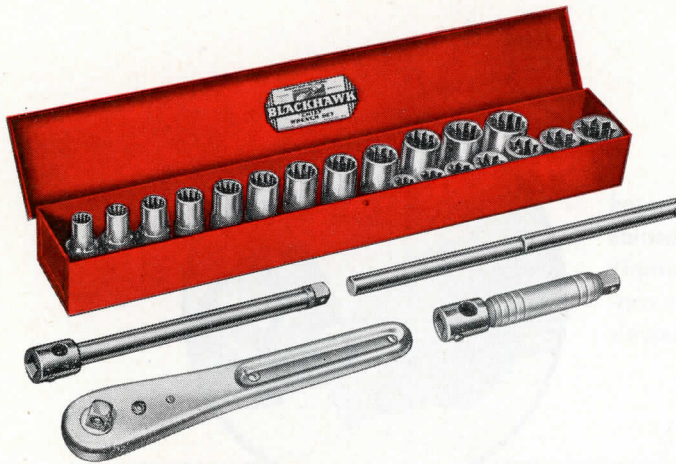
EXTRA DEEP DOUBLE HEX

No.	Size
40316	1/2"
40318	9/16"
40320	5/8"
40322	11/16"
40324	3/4"
40326	13/16"
40328	7/8"
40330	15/16"
40332	1"
40336	1 1/8"

Set No. 19051 contains one each of above 10 long double Hex Sockets packed in cardboard box.

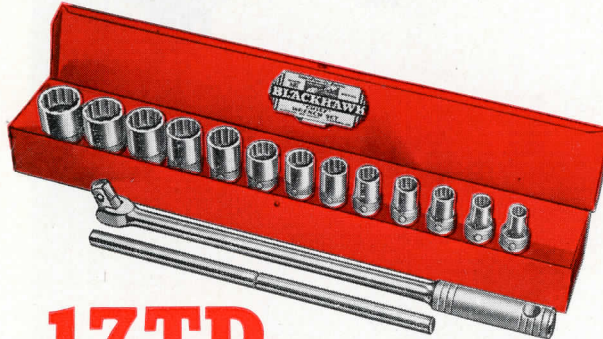
SOCKET WRENCH SETS

1/2"
DRIVE



23TD

Here is the ideal wrench set for farm, implement service and general work. The 23TD contains 12 double hexagon sockets ranging from 7/16" to 1" and seven double square sockets ranging from 7/16" to 7/8". Has four popular handles.



17TD

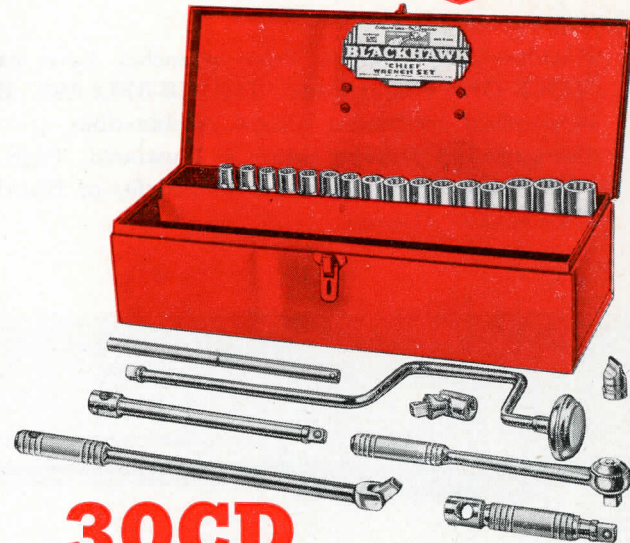
For emergency service or use as a general maintenance kit. Blackhawk placed 13 double hexagon sockets in this set to offer a complete range of sizes, 7/16" to 1 1/4". Includes hinged offset and handle bar for T or L combinations.



11PD

This set contains a range of general sockets and two basic handles; It's a practical set for shops where service generally consists only of turning popular size nuts and bolts. Also an ideal "starter set."

P-1 CASE (furnished in 11PD) is 11 3/8" long, 4 1/8" wide, and 1 1/8" high. Case is heavy gauge steel—enameled red.



30CD

A popular all-around set for general work. Basic tools make this assortment a leading choice. Includes 1/2" square drive sockets—especially picked to fit a maximum of standard nuts. Has eight handles and attachments and 16 sockets ranging from 7/16" and 1" in the double hexagon and 7/16" to 5/8" in the double square. Packed in the neat CA carrying case.

CA CASE (furnished in 30CD) is 20 1/4" long, 7 1/2" wide, 5 1/2" high. Reinforced sturdy steel construction. Enamelled brilliant Blackhawk-Red. Has hasp and carrying handle.

T CASE (furnished in 23TD and 17TD) is 18 3/8" long, 2 7/8" wide, 1-15/16" high. Both sets are packed with no waste space. Case is heavy gauge steel—enameled red.

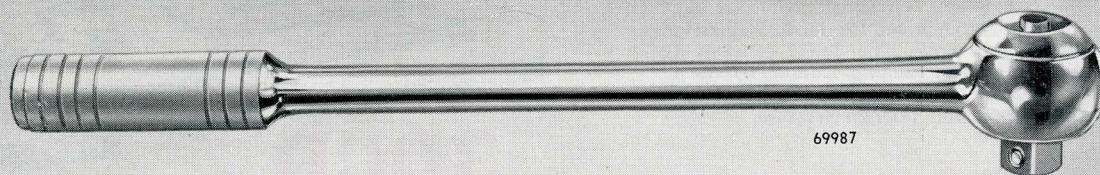
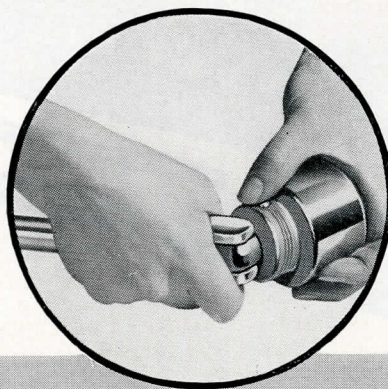
CONTENTS OF 30CD, 23TD & 11PD

No.	Description	30CD	23TD	17TD	11PD
49977	Mechanical Ratchet	1	1	1	1
49978	Universal Joint	1	1	1	1
49979	Tie Rod Bit	1	1	1	1
49982	Sliding Offset	1	1	1	1
49983	5 1/2" Extension	1	1	1	1
49985	15 3/8" Hinged Offset	1	1	1	1
49986	Handle Bar	1	1	1	1
49990	10" Extension	1	1	1	1
49994	Speeder	1	1	1	1
49996	Ratchet	1	1	1	1
40114	7/16" Dbl. Hex	1	1	1	1
40116	1/2" Dbl. Hex	1	1	1	1
40118	9/16" Dbl. Hex	1	1	1	1
40119	19/32" Dbl. Hex	1	1	1	1
40120	5/8" Dbl. Hex	1	1	1	1
40122	11/16" Dbl. Hex	1	1	1	1
40124	3/4" Dbl. Hex	1	1	1	1
40125	25/32" Dbl. Hex	1	1	1	1
40126	13/16" Dbl. Hex	1	1	1	1
40128	7/8" Dbl. Hex	1	1	1	1
40130	15/16" Dbl. Hex	1	1	1	1
40132	1" Dbl. Hex	1	1	1	1
40134	1-1/16" Dbl. Hex	1	1	1	1
40136	1 1/8" Dbl. Hex	1	1	1	1
40140	1 1/4" Dbl. Hex	1	1	1	1
40214	7/16" Dbl. Sq.	1	1	1	1
40216	1/2" Dbl. Sq.	1	1	1	1
40218	9/16" Dbl. Sq.	1	1	1	1
40220	5/8" Dbl. Sq.	1	1	1	1
40222	11/16" Dbl. Sq.	1	1	1	1
40224	3/4" Dbl. Sq.	1	1	1	1
40228	7/8" Dbl. Sq.	1	1	1	1
40614	7/16" Sgl. Hex	1	1	1	1
40616	1/2" Sgl. Hex	1	1	1	1
40618	9/16" Sgl. Hex	1	1	1	1
40620	5/8" Sgl. Hex	1	1	1	1
40622	11/16" Sgl. Hex	1	1	1	1
40624	3/4" Sgl. Hex	1	1	1	1

3/4"
DRIVE

HANDLES AND ATTACHMENTS

Blackhawk 3/4" square drive wrenches have patented "LOCK-ON" Plungers and "THUMB-RELEASE" Buttons as standard equipment. Rigid combinations are simply disengaged by pressing button as illustrated. Page 4 contains valuable information on the benefits of Blackhawk's "LOCK-ON" features.



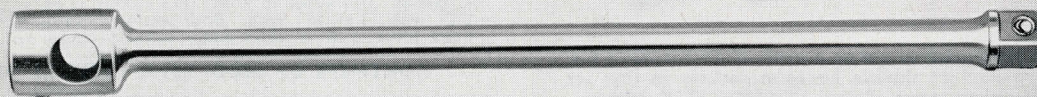
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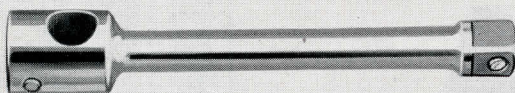
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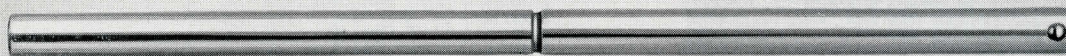
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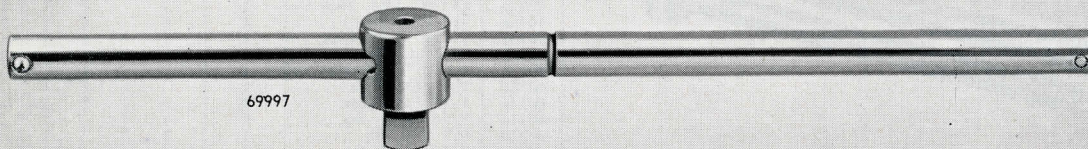
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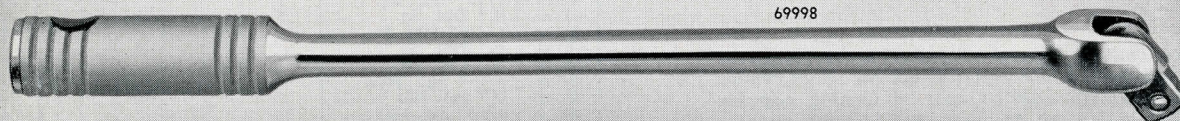
69995



69996



69997



69998

SOCKETS AND WRENCH SETS

3/4"
DRIVE

69967 RATCHET ADAPTOR—Fits in between handle and socket to make reversible ratchet combinations. Used with a hinged offset, T combination or torque indicator. Instantly reversible. Has overall length of 3 1/8" and outside diameter of 2-3/16". It has 24 teeth.

69987 REVERSIBLE MECHANICAL RATCHET—18 1/4" long. Head has diameter of only 2-5/16" and is 2 3/8" high. Has "broached-tooth" design described on page 5. It has 24 teeth. Reversed by pressing button and reversing lug. Grip is 1 3/8" dia. and is drilled for insertion of the handle bar.

69989 REPLACEMENT DRIVE LUG—(not illustrated)—For use with old ratchet Nos. 916N and 69999.

69990 ADAPTOR FOR USE WITH 1" SQUARE DRIVE HANDLES—Has 3/4" male square drive to connect 3/4" square drive sockets, and 1" female opening to join 1" square drive handles.

69992 ADAPTOR FOR USE WITH 1/2" SQUARE DRIVE HANDLES—Has 3/4" male square drive to connect 3/4" square drive sockets, and 1/2" female opening to join 1/2" square drive handles.

69994 LONG EXTENSION—Length 16 1/2". Cross-drilled for use with No. 69996 handle bar in making T or L combinations. Spring-backed ball in cross-hole grips bar firmly. 3/4" drive end has patented "LOCK-ON" plunger.

69995 SHORT EXTENSION—Same as No. 69994 (above) except for length. No. 69995 is 8 1/2" long.

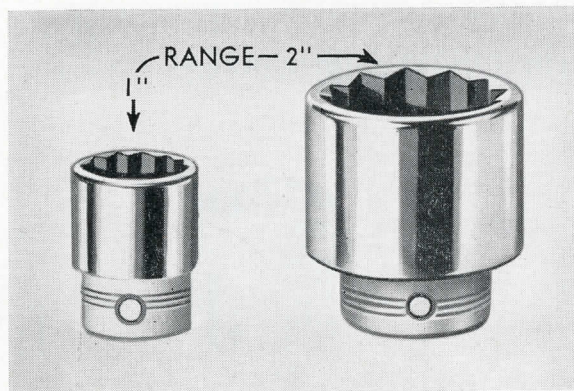
69996 HANDLE BAR—17 7/8" long. Fits into cross holes of extensions and hinged offset to make T or L combinations. Has center groove which seats spring-backed ball within cross-holes in attachments. Ball-stop on one end to prevent slipping through cross-holes accidentally. Inserts into end of ratchet or hinged offset for extra leverage. 13/16" stock diameter.

69997 SLIDING OFFSET—Bar has sliding head with 3/4" male drive lug for making T or L combinations. Stops at each end prevent head from detaching. Center groove engages spring-backed ball in head. 17 7/8" long.

69998 HINGED OFFSET—18 7/8" long. End of grip is open for insertion of handle bar for extra leverage. Cross-hole has spring-backed ball for engaging handle bar in making T or L combinations.

DOUBLE HEXAGON SOCKETS

(Listed below picture)



No.	Size	No.	Size	No.	Size
60032	1 "	60044	1 3/8"	60054	1 11/8"
60034	1 1/8"	60046	1 1/4"	60056	1 3/4"
60036	1 1/8"	60048	1 1/2"	60058	1 11/8"
60038	1 3/8"	60050	1 3/8"	60060	1 7/8"
60040	1 1/4"	60052	1 5/8"	60064	2 "
60042	1 1/8"				

CA CASE (furnished in 14BD and 12SD) is manufactured from heavy gauge steel, 20 7/8" long, 7 3/8" wide, 5 1/2" high. Has enameled brilliant "Blackhawk Red" surface.

14BD

Shown
(12SD
Similar)

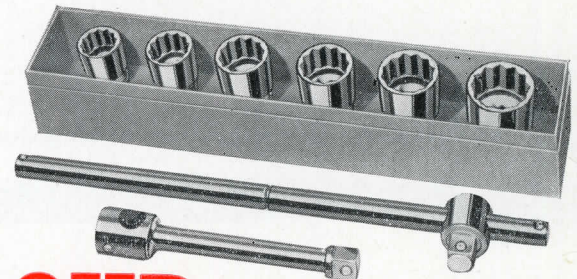


14BD

The ideal wrench assortment for heavy-duty work. Popular in construction and in assembling and maintaining mine machinery, industrial equipment, marine engines, and similar units.

12SD

Contains basic handles and ten double hexagon sockets ranging from 1" to 1-3/16"—a practical range of heavy service work. Not shown.



9HD

A basic socket and handle set for those jobs where the majority of service is turning of popular size nuts and bolts. Has six sockets and two handles. Shipped in heavy fibre box.

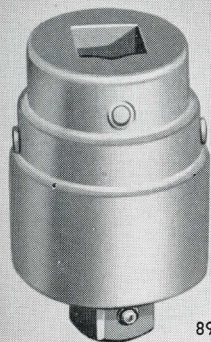
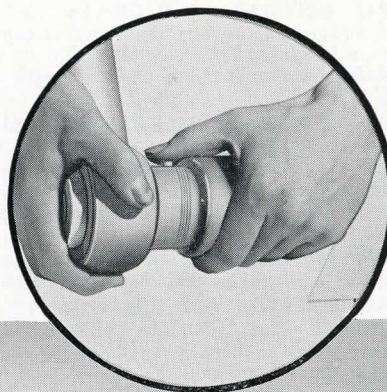
CONTENTS OF 14BD, 12SD & 9HD

No.	Description	14BD	12SD	9HD
69987	Ratchet	1	..	..
69994	16 1/2" Ext. Bar	1	..	..
69995	8 1/2" Ext. Bar	1	..	1
69996	18" Handle Bar	..	1	..
69997	Slid. Offset	1	..	1
69998	19" Hinged Offset	..	1	..
Sockets				
60028	7/8" Double Hex	1	..	..
60030	15/16" Double Hex	1	..	..
60032	1" Double Hex	1	1	..
60034	1-1/16" Double Hex	1	1	..
60036	1 1/8" Double Hex	1	1	1
60040	1 1/4" Double Hex	1	1	1
60042	1-5/16" Double Hex	1	1	..
60044	1 3/8" Double Hex	1	1	1
60046	1-7/16" Double Hex	1	1	1
60048	1 1/2" Double Hex	1	1	1
60052	1 5/8" Double Hex	1	1	1
60058	1-13/16" Double Hex	1	1	..
60064	2" Double Hex	1	..	..

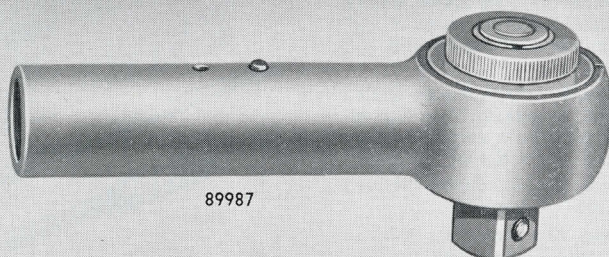
1"
DRIVE

HANDLES AND ATTACHMENTS

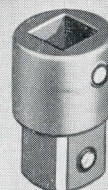
The 1" square drive wrenches have the patented "LOCK-ON" PLUNGERS and famous "THUMB-RELEASE" Buttons. Illustration shows how solid combinations can be disengaged by simply pressing button. These wrenches have cadmium finish.



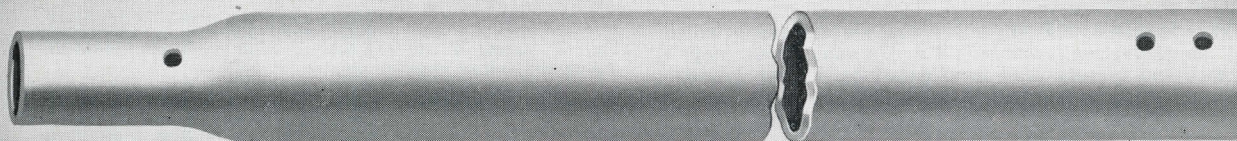
89986



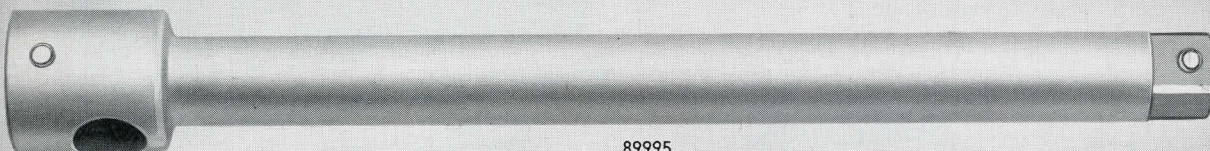
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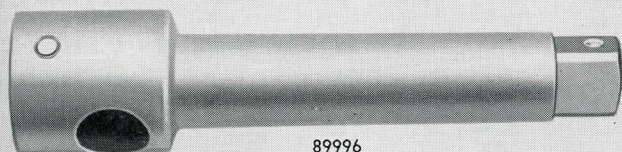
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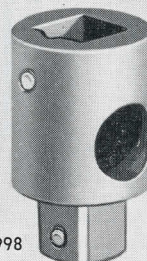
89989



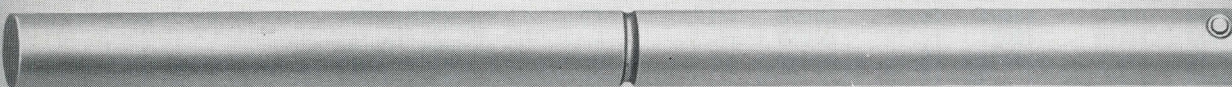
89995



89996



89998



89997

SOCKETS AND WRENCH SETS

1"
DRIVE

89986 RATCHET ADAPTOR

Makes a compact ratchet combination when used with a socket and extension to get into recessed spots where regular ratchet cannot operate. Also popular for use with large torque indicators. Has Blackhawk's exclusive "broached-tooth" ratchet design. It has 28 teeth, two pawls, and outside diameter of 2 7/8". Overall length, 4 1/2".

89987 REVERSIBLE MECHANICAL RATCHET

An extra-heavy duty ratchet possessing the same refinements of smaller Blackhawk ratchets—and despite its compactness, has brute strength for toughest jobs. Because of demand for both a long and short type wrench, the ratchet is made as a head only and can be used with the No. 89997 handle bar inserted within the shank or the No. 89989 tubular handle slipped over the shank. Hole in shank grasps "Lock-On" plunger of handle bar. "Lock-On" plunger on ratchet shank engages tubular handle. Has Blackhawk's "broached-tooth" ratchet design—with double pawls and 28 teeth. It is 3 1/4" high, 9" long. Easily reversed. Head dia. of 3 1/4".

89989 TUBULAR HANDLE FOR RATCHET

Used with No. 89987 ratchet (above). 35 3/4" long. Tapered end fits over "LOCK-ON" end of No. 89997 handle bar—gives greater leverage when handle bar is inserted into open shank of ratchet or when tubular handle is slipped over ratchet shank.

89993 ADAPTOR FOR 3/4" SQ. DR. HANDLES

Has 1" male sq. dr. to connect 1" sq. dr. sockets, and 3/4" female opening to join 3/4" sq. dr. sockets.

89994 REPLACEMENT DRIVE LUG

(Not illustrated)—For use with old ratchet No. 89999.

89995 LONG EXTENSION

Length, 17 1/2". Cross-drilled for use with No. 89997 handle bar in making T or L combinations. Spring-backed ball in cross-hole grips bar firmly. 1" sq. dr. opening has "Lock-On" to make solid combinations with other handles.

89996 SHORT EXTENSION

Same as No. 89995 except for 8 1/2" length.

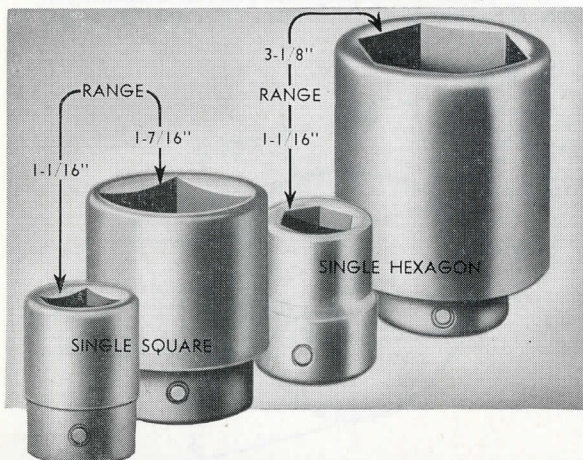
89997 HANDLE BAR

23" long. Used with No. 89998 head (below) to make sliding T combination. Also inserts into shank of 89987 ratchet and cross-holes of extensions. Has center groove for engaging spring-backed ball within these cross holes.

89998 SLIDING T HEAD AND ADAPTOR

Used with No. 89997 handle bar for making T or L combinations. Has spring-backed ball in cross-hole for engaging bar. Top of head has 1" square drive female opening for direct attachment to extensions. 25 1/8" long.

Sockets Shown Below Described Right



15ED 1" SQ. DR. WRENCH SET

An extra-heavy duty set for toughest service or work. Ideal for construction and maintenance jobs or where strength is required. Set finished in cadmium.

CONTENTS OF 15ED

89987—Ratchet	80046—1 7/8" Sgl. Hex
89989—23" Handle	80052—1 5/8" Sgl. Hex
89995—17 1/2" Ext. Bar	80058—1 1/4" Sgl. Hex
89996—8 1/2" Ext. Bar	80064—2" Sgl. Hex
89997—23" Handle Bar	80070—2 3/8" Sgl. Hex
89998—Sliding T Head	80076—2 3/8" Sgl. Hex
Sockets	80082—2 1/8" Sgl. Hex
80040—1 1/4" Sgl. Hex	80088—2 3/4" Sgl. Hex

E CASE—(furnished in 15ED assortment) is 23 5/8" long, 8 1/8" wide, 5" high. Strong steel construction—baked enameled "Blackhawk Red". Has handle and hasp.

SINGLE SQUARE SOCKETS

No.	Size	No.	Size
81034	1 1/8"	81046	1 7/8"
81040	1 1/4"		

Sockets described above and below are illustrated left.

SINGLE HEXAGON SOCKETS

No.	Size	No.	Size	No.	Size
80034	1 1/8"	80058	1 3/8"	80080	2 1/2"
80036	1 1/8"	80060	1 7/8"	80082	2 1/8"
80040	1 1/4"	80064	2"	80084	2 3/8"
80042	1 1/8"	80068	2 1/8"	80086	2 1/2"
80044	1 3/8"	80070	2 3/8"	80088	2 3/4"
80046	1 1/8"	80072	2 1/4"	80092	2 7/8"
80048	1 1/2"	80074	2 5/8"	80098	3 1/8"
80052	1 5/8"	80076	2 3/8"	80100	3 1/8"
80054	1 1/8"	80078	2 1/8"	*80112	3 1/2"
80056	1 3/4"				

*Made to order only.

BLACKHAWK
ARMSTRONG

OPEN- ENDS

Own These Famous Open- Ends...With Exclusive Hexite Steel, Popular Size Openings

At last—you can own open-end wrenches designed especially for automotive work. They're slimmer, thinner, tougher than any other open-ends on the market! Mechanics no longer need use heavy, cumbersome "Engineers' Wrenches" adapted to machine nut and bolt sizes. No improper size combinations to retard work and increase tool investment. Hexite Open-Ends have sizes arranged progressively and grouped scientifically for speedy and convenient handling of nuts and bolts. While "tailor-made" for automotive work—Hexite Open-Ends are equally superior in aviation, construction, industrial production and maintenance, tractor and implement work, and in many other services! Made from the same famous alloy (Hexite) which makes Nugget Socket Wrenches possible.

No.	Milled Openings	Head Thickness	Overall Length
4020	1/4" — 1/8"	3/8"	4 1/4"
4721	5/16" — 3/8"	11/16"	4 3/4"
4723	3/8" — 1/2"	3/4"	5 1/4"
4725	1/2" — 5/8"	7/8"	5 7/8"
4725B	1/2" — 5/8"	1/4"	6 1/2"
4727	5/8" — 3/4"	1 1/8"	7 1/4"
4729	3/4" — 7/8"	1 1/4"	8"
4028	7/8" — 1"	1 1/2"	8"
4730A	1" — 1 1/8"	1 3/4"	8 3/4"
4731A	1 1/8" — 1 1/4"	1 7/8"	9 1/2"
4033C	1 1/4" — 1 1/2"	2"	10 1/2"
4735A	1 1/2" — 1 3/4"	2 1/4"	11 1/2"
4039B	1 3/4" — 2"	3/8"	12 1/2"

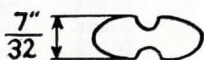
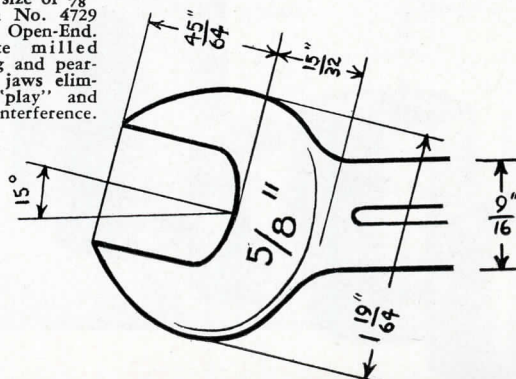
(See complete set 13CB and smaller set 8CB on opposite page)

LESS WEIGHT AND BULK! GREATER LEVERAGE! LONGER LIFE!

Hexite is the strongest practical alloy steel known to the wrench industry. That's why Hexite Open-Ends have less weight and bulk; thinner heads; comfortable, slim handles; better balance and amazing wearing qualities. Yes Sir! You'll enjoy working with these featherweight but sturdy, glittering beauties!

HIGH-GRADE FINISH—Hexite Open-Ends have heavy chrome plating to resist wear and rust. They sparkle with flawless brilliance. Handles have soft, satin finish—heads are highly polished. Openings are precision-milled—and, because of Hexite, will not round out as easily as other Open-End Wrenches.

Actual size of 3/8" end on No. 4729 Hexite Open-End. Accurate milled opening and pear-shaped jaws eliminate "play" and bulky interference.



Handle cross-section of No. 4729 (above). Comfortable, curved grip. Groove reduces weight.

Dotted line show relative size of ordinary wrench having identical openings.

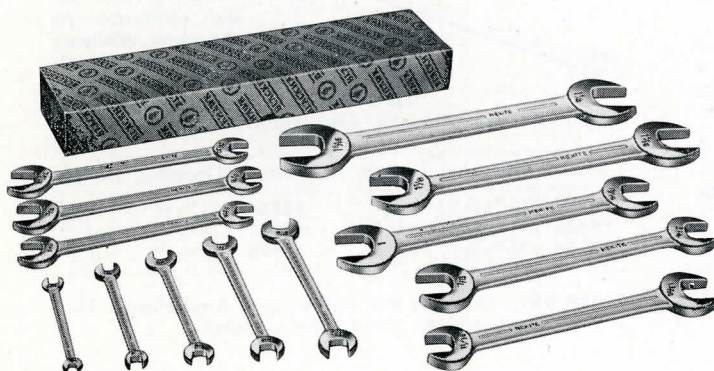
Side view of No. 4729 Hexite Open-End showing thin head and handle shank.

Own These Open-End Sets that Eliminate Duplication

Here is a wrench for every size nut, and at the lowest possible investment !

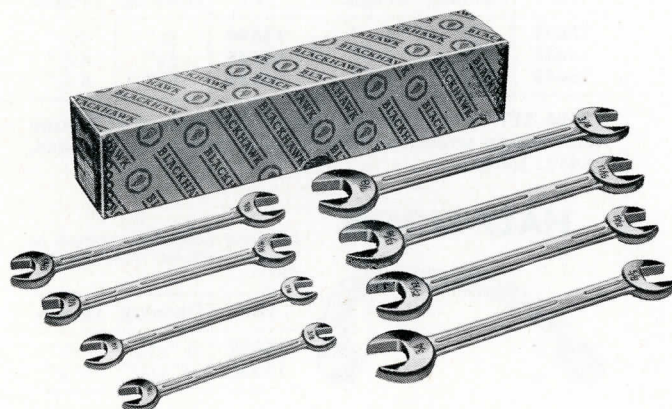
13CB CONTAINS ALL 13 HEXITE OPEN-ENDS

The 13CB Set includes one each of the Hexite Open-End Wrenches illustrated below. Shipped in sturdy cardboard container.



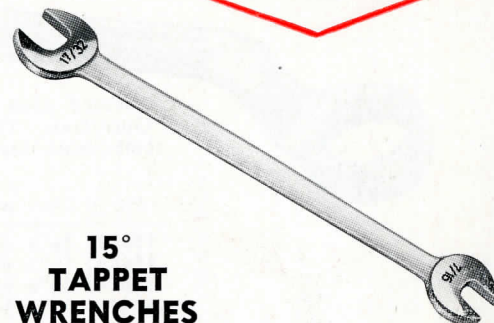
8CB INCLUDES 8 POPULAR HEXITE OPEN-ENDS

8CB contains one each of Hexite Open-End Nos. 4723, 4725, 4725B, 4727, 4729, 4028, 4730A, and 4731A. Shipped in cardboard container. 8CB shown below.



BLACKHAWK
ARMSTRONG

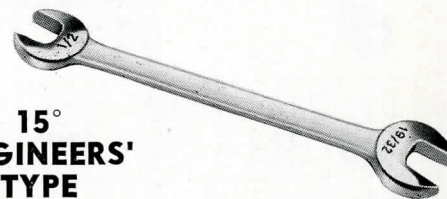
OPEN- ENDS



15°
TAPPET
WRENCHES

No.	Old No.	Milled Opening	Overall Length	Head Thickness
1090G	420	$\frac{7}{16}$ "— $\frac{17}{32}$ "	8"	$\frac{5}{32}$ "
1090D	422	$\frac{1}{2}$ "— $\frac{9}{16}$ "	8"	$\frac{3}{32}$ "
1092F	424	$\frac{5}{8}$ "— $\frac{11}{16}$ "	8½"	$\frac{3}{16}$ "
1094	426	$\frac{3}{4}$ "— $\frac{7}{8}$ "	9"	$\frac{7}{32}$ "

22CB SET—Contains two each of the following wrenches: Nos. 1090D, 1092F, and 1094. Shipped in cardboard container.



15°
ENGINEERS'
TYPE

No.	Milled Opening	Overall Length	Head Thickness
1720	$\frac{5}{16}$ "— $\frac{11}{32}$ "	4½"	$\frac{3}{16}$ "
1725A	$\frac{7}{16}$ "— $\frac{9}{16}$ "	6½"	$\frac{1}{4}$ "
1025	$\frac{1}{2}$ "— $\frac{5}{8}$ "	6½"	$\frac{1}{4}$ "
1027	$\frac{3}{8}$ "— $\frac{11}{16}$ "	7"	$\frac{3}{8}$ "
1027B	$\frac{5}{8}$ "— $\frac{11}{16}$ "	7¼"	$\frac{3}{8}$ "
1029B	$\frac{11}{16}$ "— $\frac{3}{4}$ "	8½"	$\frac{1}{8}$ "
1029	$\frac{11}{16}$ "— $\frac{3}{4}$ "	8"	$\frac{1}{16}$ "
1731	$\frac{3}{4}$ "— $\frac{13}{16}$ "	9½"	$\frac{3}{8}$ "
1731B	$\frac{11}{16}$ "— $\frac{7}{8}$ "	9½"	$\frac{3}{8}$ "
1033A	$\frac{7}{8}$ "— $\frac{15}{16}$ "	9½"	$\frac{3}{8}$ "
1733	$\frac{7}{8}$ "—1"	10¾"	$\frac{1}{8}$ "
1034	$\frac{7}{8}$ "—1¼"	10¾"	$\frac{1}{8}$ "
1735	1"—1½"	12¼"	1½"
1037	1¼"—1½"	12¼"	1½"
1037A	1½"—1¾"	12¾"	1½"
1039C	1¾"—1¾"	15"	$\frac{9}{16}$ "
1041B	1½"—1¾"	15¾"	$\frac{3}{4}$ "

MINIATURE OPEN ENDS



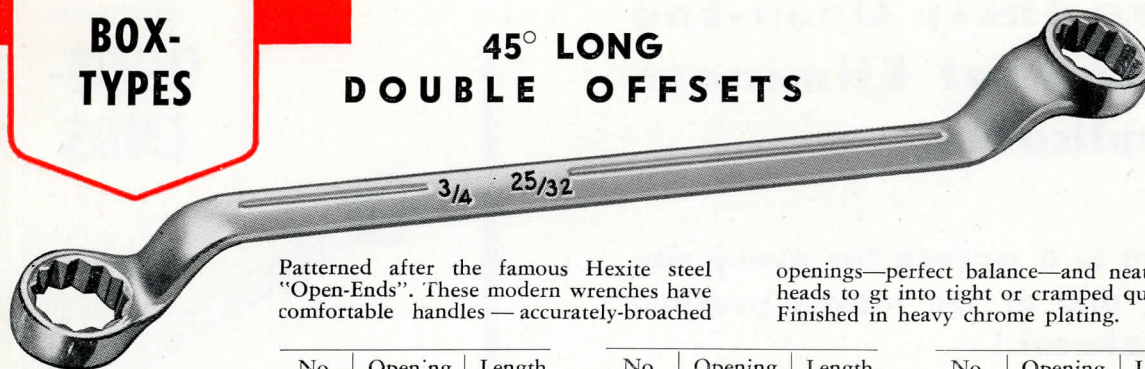
15°

No.	Milled Opening	Overall Length	Head Thickness
H-10	$\frac{3}{16}$ "— $\frac{7}{32}$ "	2½"	$\frac{3}{32}$ "
H-12	$\frac{1}{4}$ "— $\frac{9}{32}$ "	3"	$\frac{3}{32}$ "
H-14	$\frac{1}{8}$ "— $\frac{3}{16}$ "	3¾"	$\frac{1}{16}$ "
H-16	$\frac{3}{8}$ "— $\frac{7}{16}$ "	4½"	$\frac{7}{32}$ "
H-18	$\frac{3}{8}$ "— $\frac{7}{16}$ "	4½"	$\frac{7}{32}$ "

20CB SET—Includes one each of the above Miniature Open-Ends, packed in a sturdy fibre container.

BOX-TYPES

45° LONG DOUBLE OFFSETS



Patterned after the famous Hexite steel "Open-Ends". These modern wrenches have comfortable handles—accurately-broached

openings—perfect balance—and neat, trim heads to get into tight or cramped quarters. Finished in heavy chrome plating.

No.	Opening	Length
15622	3/8"x 7/16"	7 5/8"
15623	1/2"x 9/16"	8 5/8"
15624	5/8"x 1 1/16"	9 3/4"
15625	3/4"x 3/8"	11 1/8"

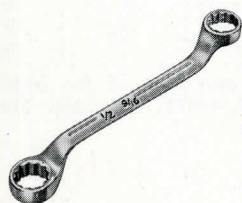
No.	Opening	Length
15626	1 1/8"x 7/8"	12 1/2"
15627	1 1/8"x 1"	14 1/4"
15818	1 1/8"x 1 1/8"	15 1/8"

No.	Opening	Length
15829	1 1/4"x 1 3/8"	18 1/2"
15830	1 1/8"x 1 3/8"	23"
15834	1 1/4"x 1 1/8"	17 5/8"

19057 SET—Contains the following 6 long double offset box-types packed in a

fibre box: Nos. 15622, 15623, 15624, 15625, 15626, 15627.

SHORT DOUBLE OFFSETS



Small, compact, sturdily-built wrenches. Thin heads—accurately machined—handle design wipes clean and gives comfortable grip.

No.	Opening	Length
15612	3/8"x 7/16"	4 1/2"
15613	1/2"x 9/16"	5 1/4"

No.	Opening	Length
15614	5/8"x 1 1/16"	6"

19056 SET—Contains one each of the above Short Double Offsets packed in fibre box.

ANGL-HEAD



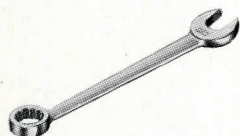
Blackhawk's Angl design gives this wrench greater handle clearance—yet it operates with the same efficiency as a straight wrench. Smooth handle grip will not cut or mar hand. Trim, sleek head firmly grasps nut or bolt—will not slip or break. Chromium plated.

No.	Opening	Length
15632	3/8"x 7/16"	7 3/4"
15633	1/2"x 9/16"	8 3/4"
15634	5/8"x 1 1/16"	9 3/4"

No.	Opening	Length
15940	3/4"x 3/8"	11 1/4"
15941	1 1/8"x 7/8"	12 3/4"
15942	1 1/8"x 1"	14 1/2"

19058 SET—Contains the following 6 Angl-Heads: Nos. 15632, 15633, 15634, 15940, 15941, 15942.

COMBINATION WRENCHES



STANDARD

Perfect wrench combination for removing or setting nuts. Open-end for quick turning—box-end for tough pulls. Both heads have slight angle for ample knuckle clearance. A real double-duty wrench for quick adjustments and tune-up work.

No.	Opening	Lgth.
1161	7/16"	5"
1162	1/2"	5 1/4"
1163	9/16"	5 3/4"
1164	5/8"	6 1/8"
1165	1 1/16"	7"
1166	3/4"	8"
1167	7/8"	10 1/2"
1176	1 7/16"	10 1/2"

No.	Opening	Lgth.
1167A	1 3/8"	13"
1168	1 1/2"	13"
1170	1"	15"
1171	1 1/16"	15"
1172	1 1/8"	18"
1173	1 1/4"	18"
1174	1 5/16"	21"

19069 SET—Contains the following 4 combinations wrenches: Nos. 1161, 1162, 1163, 1164.

MINIATURE

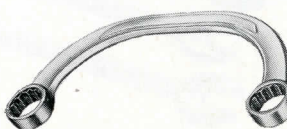
The neatest, lightest, and most practical wrench you will ever want to twirl. Fits in tight quarters where length or clearance is limited. Exacting head construction and comfortable grip make these miniature combination wrenches the popular choice among leading mechanics.

No.	Opening	Length
15641	7/32"	3"
15642	1/4"	3"
15643	9/32"	3 1/2"

No.	Opening	Length
15644	5/16"	3 1/2"
15645	3/8"	4 1/8"
15646	3/8"	4 1/8"

19086 SET—Contains one each of the above 6 Miniature combination wrenches: Nos. 15641, 15642, 15643, 15644, 15645, 15646.

HALF-MOON

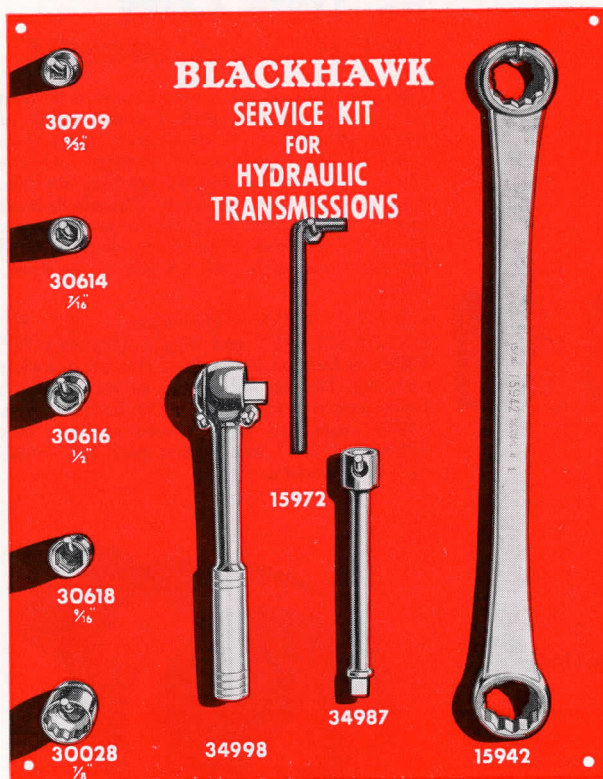


Ideal for generators, starters or other similar hard-to-get-at spots.

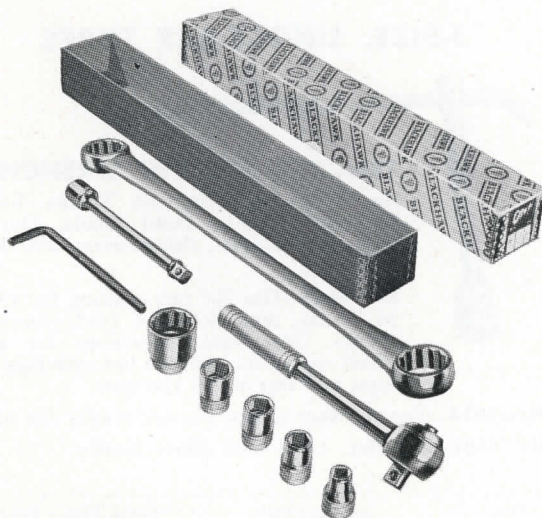
No.	Opening	Length
15659	9/16"x 5/8"	7 1/8"
15660	1 1/16"x 3/4"	7 7/8"

THIS KIT SERVICES ALL AUTOMATIC TRANSMISSIONS

TRANSMISSION KIT



NO. 19622 ASS'T. (ABOVE) includes 19623 assortment of wrenches and 19624 metal panel.



NO. 19623 ASS'T. (ABOVE) includes wrenches only—shipped in cardboard container.

Here are practical, low-cost transmission wrench kits for complete and speedy service on *all* hydraulic transmissions.

Check this amazing value — one special square, one double hex and three single hex sockets, *all* hot broached, *all* polished chromium and *all* long wearing.

The strongest, most compact and modern ratchet on the market. A short, strong extension — which is also cross-drilled for use with bar.

A chromium plated, accurately-broached angl-head box wrench.

And, a brilliant red, all-steel, rigid wall panel that keeps tools neatly arranged and out in the open for instant use — besides advertising that you are equipped to do transmission lubrication service.

Yes, mechanics, service stations, garages, car dealer shops—all need a practical, low-cost Blackhawk Hydraulic Transmission Service Kit to get in on this new profitable service business. (See assortments, left.)

PANEL HANGS ON WALL!

Keeps tools neatly arranged, out in the open ready for instant use. Panel has holes in corners for mounting.



CONTENTS OF 19622, 19623

Model No.	Description	19622	19623
30028	3/8" Drive, 7/8" Dbl. Hex. Skt.	1	1
30614	3/8" Drive, 7/8" Sgl. Hex. Skt.	1	1
30616	3/8" Drive, 1/2" Sgl. Hex. Skt.	1	1
30618	3/8" Drive, 5/8" Sgl. Hex. Skt.	1	1
30709	3/8" Drive, 3/2" Sgl. Sq. Skt.	1	1
34987	3/8" Drive; 5" Ext. Bar	1	1
34998	3/8" Drive, Ratchet	1	1
15942	1 1/8" & 1" Dbl. Hex. Box Type	1	1
15972	3/8" Hex. Allen (offset)	1	1
19624	12" x 16" Red Metal Panel	1	—

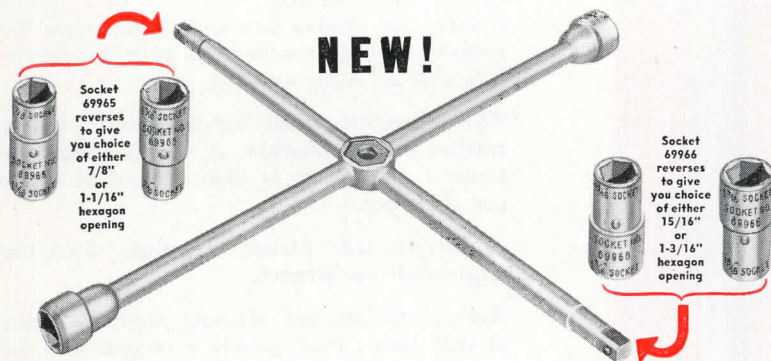
TRUCK, BUS RIM WRENCHES

THE MOST PRACTICAL RIM WRENCH DESIGNED... WITH DETACHABLE SOCKETS!

No. 15970 6-SIZE WITH LOOSE SOCKETS

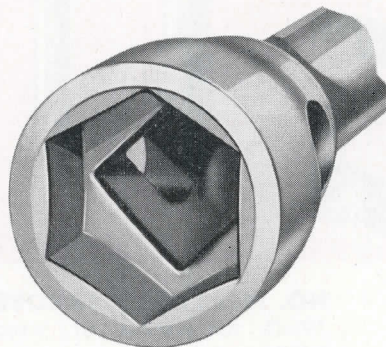
This practical development in rim wrenches services all current makes and models of trucks and buses. It gives you seven sizes—all in *one* lightweight wrench—because of two detachable, double opening sockets. And—both sockets have Thumb-Release LOCK-ON. Here's a brute for punishment. Made of selected alloy steel—heat treated for extra strength. Shanks are 1" in diameter.

SOCKET SIZES — (Hexagon) $\frac{7}{8}$ ", $\frac{15}{16}$ ", $1\frac{1}{8}$ ", $1\frac{3}{8}$ ", $1\frac{1}{4}$ " and $1\frac{1}{2}$ "; (Square) $\frac{13}{16}$ " which is located in back of the $1\frac{1}{4}$ " socket opening. Length, over ends of sockets, 29". Complete wrench No. 15970 includes No. 15969 cross bar with affixed sockets, No. 69965 $\frac{7}{8}$ "- $1\frac{1}{8}$ " hex socket and No. 69966 $\frac{15}{16}$ "- $1\frac{3}{8}$ " socket.

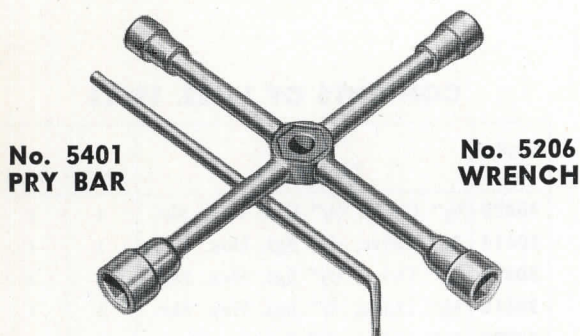


TWO SOCKET SIZES IN ONLY ONE OPENING!

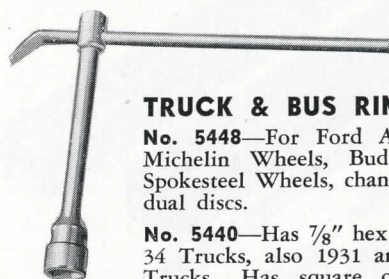
This extra convenience of double broaching means less tools to handle... and more service with only one tool. Double socket has hexagon and square sizes... with square opening in back of broach. Found on $1\frac{1}{4}$ " socket of 15970 and wrenches 5440, 5448 and 5206.



No. 5206 6-SIZE, CROSS-TYPE



3-SIZE, SINGLE-BAR TYPES



TRUCK & BUS RIM WRENCHES

No. 5448—For Ford AA Trucks, Budd-Michelin Wheels, Budd Duals, Dayton Spokesteel Wheels, change-overs, and deep dual discs.

No. 5440—Has $\frac{7}{8}$ " hex opening for 1933-34 Trucks, also 1931 and 1932 Chevrolet Trucks. Has square openings for rear wheel rim studs, and two hex openings for front and rear wheel rim nuts.

No. 5434—For all other trucks, bus and trailer rim nuts.

No. 5401—Pry Bar. Used with above shanks.

Handles 90% of all truck rim nuts. Has $\frac{3}{4}$ " diameter shanks for extra strength. Equipped with hole through center for use with No. 5401 Bar to get extra leverage. Socket sizes, $\frac{7}{8}$ ", $1\frac{1}{8}$ ", $1\frac{1}{4}$ ", and $1\frac{1}{2}$ " hex openings; $\frac{5}{8}$ " and $\frac{13}{16}$ " square openings. Back of $1\frac{1}{4}$ " hex socket is broached $\frac{13}{16}$ " square for AA Ford and Budd-Michelin rims. Back of $\frac{7}{8}$ " hex openings is broached $\frac{5}{8}$ " square for 1931-32 Chevrolet trucks.

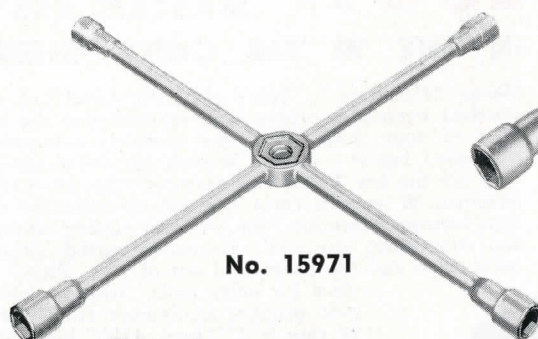
No.	Socket Sizes	Stock Dia.	Length
*5448	$\frac{13}{16}$ " Sq., $1\frac{1}{8}$ " & $1\frac{1}{2}$ " Hex	$\frac{7}{8}$ "	$16\frac{1}{2}$ "
*5440	$\frac{5}{8}$ " Sq., $\frac{7}{8}$ " & $1\frac{1}{4}$ " Hex	$\frac{7}{8}$ "	$16\frac{1}{2}$ "
*5434	$1\frac{1}{8}$ " & $1\frac{3}{8}$ " Hex	$\frac{7}{8}$ "	$16\frac{1}{2}$ "
5401	Pry Bar only	$\frac{3}{4}$ "	20"

*Does not include No. 5401 Pry Bar.

THREE MODELS . . . ALL RUGGEDLY BUILT . . . ALL LIGHTWEIGHT

AUTO RIM AND LUBRICATION WRENCHES

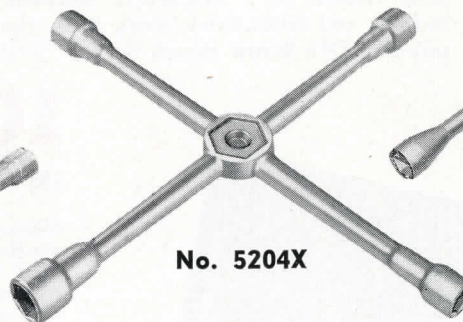
- SELECTED STEEL
- ACCURATELY-BROACHED
- SOCKETS — PREVENT ROUNDING OF WHEEL
- NUTS
- LIGHTWEIGHT — EASY TO USE
- CADMIUM PLATED



No. 15971

No. 15971, 20½" LENGTH

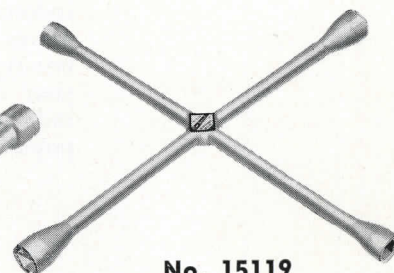
A long arm wrench to clear fenders and skirts on modern vehicles. Identical to famous 5204X except for greater length. Has bell-shaped sockets with deep broach for long bolt. Lasts five times as long as ordinary rim wrenches due to special steel and construction. Cadmium plated. Length, 20½". Socket opening (hexagon)— $\frac{5}{8}$ ", $\frac{3}{4}$ ", $\frac{11}{16}$ " and $\frac{7}{8}$ ".



No. 5204X

No. 5204X, 14½" LENGTH

This wrench speeds up tire service or repair. Has bell-shaped sockets — for quick grasping of nut even when close to wheel hub. Extra-deep construction takes care of extended bolts. Has five times life of ordinary rim wrenches. Wrench is 14½" long—depth of sockets 1½". Socket sizes, $\frac{5}{8}$ ", $\frac{3}{4}$ ", $\frac{11}{16}$ " and $\frac{7}{8}$ " hex.

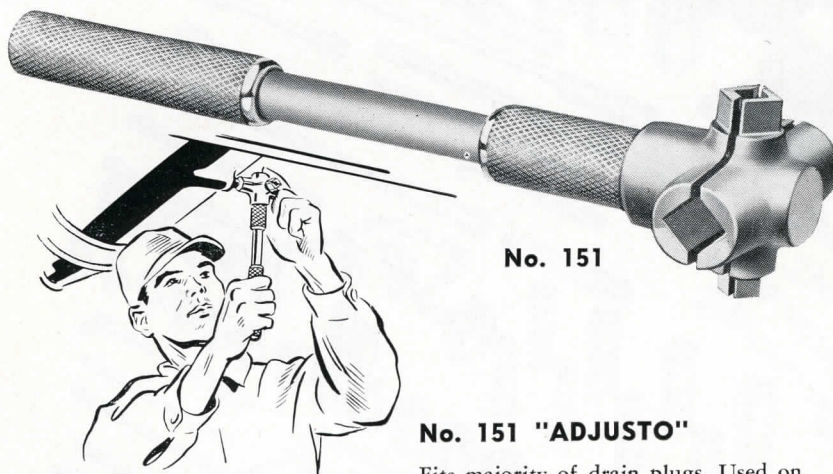


No. 15119

No. 15119, 13½" LENGTH

Truly the finest standard rim wrench produced. Is sturdy, attractively-priced, and popular with every mechanic or car owner. Painted red. Has same important features found in larger Blackhawk rim wrenches. Extra-deep bell-shaped sockets in $\frac{5}{8}$ ", $\frac{3}{4}$ ", $\frac{11}{16}$ " and $\frac{7}{8}$ " hex. Designed for general car use. 13½" overall length.

POPULAR LUBRICATION SPECIALS



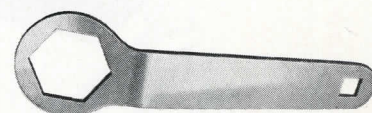
No. 151

No. 151 "ADJUSTO"

Fits majority of drain plugs. Used on all transmissions, differentials, shock absorbers, etc. Jaws adjusted by turning knurled sleeve. 9" long. Fits hex male plugs, $\frac{1}{8}$ " to 1½"; sq. male plugs, $\frac{3}{16}$ " to 1¼"; sq. female openings, $\frac{1}{8}$ " to 1".

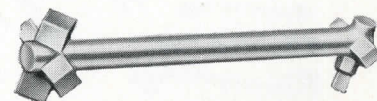
A WRENCH THAT GRASPS RIGIDLY!

This unique all-purpose "ADJUSTO" doesn't upset adjustments when you grasp the handle. Special screw-sleeve locks jaws securely.



No. 15798 DRAIN PLUG

Ford & Mercury Drain Plug Wrench. Has 2" hexagon opening and $\frac{9}{16}$ " square opening to fit transmission drain and filler plugs. Length, 10½". Has offset handle for hand clearance. Constructed from strong steel. Has cadmium finish.



No. 152 "MULTI-PLUG"

Single piece construction. Fits practically all female plugs on every car. Length 8". Forged of special steel—heat treated—cadmium finish. Has following size plugs— $\frac{1}{8}$ ", $\frac{3}{16}$ ", $\frac{1}{4}$ ", $\frac{5}{16}$ ", $\frac{3}{8}$ ", $\frac{7}{16}$ ", $\frac{1}{2}$ ", $\frac{9}{16}$ " square; $\frac{1}{8}$ " hexagon. A handy tool.

MASTER WRENCH SETS

SELECTED ASSORTMENTS OF MATCHED WRENCHES

Here are the most superb assortments of regular wrenches the master mechanic can buy! A practical range of sockets in the $\frac{1}{4}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{3}{4}$ " drives along with important handles, box-type and open-end wrenches—plus your choice of a brilliantly finished, radiant red Blackhawk work case, the popular DD Work Bench or DS "Red

Rover" wrench stand. All wrenches have long-wearing sparkling chrome and the exclusive, professional Blackhawk features found on pages 4 and 5. For proof of their value and superiority, ask the thousands of mechanics who are proud owners of Blackhawk Master Wrench Sets.

100W MASTER ASS'T IN THE W 'BIG CHIEF' CHEST

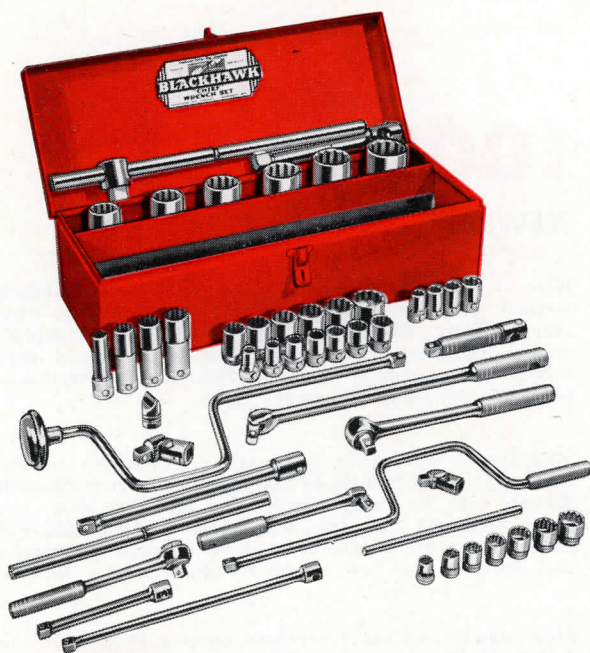
Master Mechanics — here's the "Big Chief" of all matched wrench assortments, to earmark you the big chief of your shop! Note the complete assortment illustrated below — a vital wrench for every service with all the big Blackhawk features. The super-size, beautiful W wrench chest has smartly-contoured design, lustrous chromium trim, five easy-gliding drawers and convenient tote tray. Attractively-styled hinged-hood front and top panel fold out of way. Plenty of space for other tools. Strong tumbler lock protects equipment from theft. W case is 27" long, $11\frac{1}{2}$ " high, and $12\frac{5}{8}$ " wide, heavy-gauge steel. Brilliant "Blackhawk Red" enamel finish. 100W contents listed on next page.



CONTENTS
LISTED
ON NEXT PAGE

IN PRACTICAL, MODERN CASES

MASTER WRENCH SETS



52CA SPECIAL MASTER ASST.

NEW! Yes, the popularity of the Master Wrench Sets has been so great, that Blackhawk has extended the range of sets to now offer another—the special 52CA. Basically a socket set, the 52CA gives master mechanics the opportunity of equipping right for popular service—and adding later. Has $\frac{3}{8}$, $\frac{1}{2}$ and $\frac{3}{4}$ " drive wrenches as illustrated—with the famous money-saving Blackhawk features. Socket sizes range from $\frac{3}{8}$ " to $1\frac{1}{8}$ ". Packed in CA case, see page 23.



90R

70R

MASTER ASST'S IN THE R 'TREASURE' CHEST

This big and fine "Treasure Chest" (R Case) is a beautiful, practical home for the treasures of glittering wrenches in the 70R or 90R assortments. As illustrated and described, the R case is similar in principle to the W case (page 34) but is $22\frac{1}{8}$ " long, $9\frac{1}{8}$ " high, and $12\frac{5}{8}$ " wide.

CONTENTS OF SETS 70R, 90R, 100W and 52CA

Cat. No.	Description	70R	90R	100W	52CA	Cat. No.	Description	70R	90R	100W	52CA	Cat. No.	Description	70R	90R	100W	52CA	Cat. No.	Description	70R	90R	100W	52CA
Ignition Open-End						$\frac{1}{4}$" Square Drive						Double Hex Universal Joint Sockets						Double Square Sockets					
H-10	$\frac{1}{8}$ "- $\frac{3}{8}$ "	1	1	1	1	24991	Ratchet	1	1	1	1	30216	$\frac{1}{2}$ "	1	1	1	1	40212	$\frac{3}{8}$ "	1	1	1	1
H-12	$\frac{1}{4}$ "- $\frac{3}{8}$ "	1	1	1	1	24995	Grip Handle	1	1	1	1	30218	$\frac{9}{16}$ "	1	1	1	1	40214	$\frac{1}{2}$ "	1	1	1	1
H-14	$\frac{3}{8}$ "- $\frac{1}{2}$ "	1	1	1	1	24996	5" Ext. Bar	1	1	1	1	30220	$\frac{3}{4}$ "	1	1	1	1	40216	$\frac{5}{8}$ "	1	1	1	1
H-16	$\frac{1}{2}$ "- $\frac{3}{4}$ "	1	1	1	1	24997	Hdl. Bar	1	1	1	1							40218	$\frac{7}{8}$ "	1	1	1	1
Tappet Open-End						24999	Hinged Offset	1	1	1	1	$\frac{1}{2}$" Square Drive						Long Thin Double Hex Sockets					
1090D	$\frac{1}{2}$ "- $\frac{3}{4}$ "	2	2	2	2	N-5	Plastic Case	1	1	1	1	49978	Univ. Jt.	1	1	1	1	40316	$\frac{1}{2}$ "	1	1	1	1
1090G	$\frac{3}{8}$ "- $\frac{1}{2}$ "	2	2	2	2	Single Hex Sockets						49979	Tie Rod Screw	1	1	1	1	40318	$\frac{5}{8}$ "	1	1	1	1
1092F	$\frac{3}{8}$ "- $\frac{1}{2}$ "	2	2	2	2	21006	$\frac{1}{8}$ "	1	1	1	1	49980	Stud Puller	1	1	1	1	40320	$\frac{7}{8}$ "	1	1	1	1
1094	$\frac{3}{4}$ "- $\frac{1}{2}$ "	2	2	2	2	21007	$\frac{1}{4}$ "	1	1	1	1	49983	5 $\frac{1}{2}$ " Ext. Bar	1	1	1	1	40324	$\frac{1}{2}$ "	1	1	1	1
Hexite Open-End						21008	$\frac{3}{8}$ "	1	1	1	1	49985	Hinged Offset	1	1	1	1	40326	$\frac{3}{4}$ "	1	1	1	1
4723	$\frac{3}{8}$ "- $\frac{1}{2}$ "	1	1	1	1	21009	$\frac{1}{2}$ "	1	1	1	1	49986	Hdl. Bar	1	1	1	1	40328	$\frac{7}{8}$ "	1	1	1	1
4725	$\frac{1}{2}$ "- $\frac{3}{4}$ "	1	1	1	1	21010	$\frac{3}{4}$ "	1	1	1	1	49988	10" Ext. Bar	1	1	1	1	40332	$\frac{1}{2}$ "	1	1	1	1
4725B	$\frac{1}{2}$ "- $\frac{3}{4}$ "	1	1	1	1	21011	$\frac{1}{2}$ "	1	1	1	1	49990	Speeder	1	1	1	1	40336	$\frac{1}{8}$ "	1	1	1	1
4727	$\frac{3}{8}$ "- $\frac{1}{2}$ "	1	1	1	1	21012	$\frac{3}{8}$ "	1	1	1	1	49994	Hdl. Ratchet	1	1	1	1	$\frac{3}{4}$" Square Drive					
4729	$\frac{1}{2}$ "- $\frac{3}{4}$ "	1	1	1	1	*21014	$\frac{1}{2}$ "	1	1	1	1	49996	Ratchet	1	1	1	1	Double Hex Sockets					
4730A	$\frac{3}{4}$ "- $\frac{1}{2}$ "	1	1	1	1	*Dbl. Hex						49997	Ratchet	1	1	1	1	60036	$\frac{1}{8}$ "	1	1	1	1
4731A	$\frac{1}{2}$ "- $\frac{3}{4}$ "	1	1	1	1	$\frac{3}{8}$" Square Drive						Double Hex Sockets						60040	$\frac{1}{4}$ "	1	1	1	1
4033C	$\frac{1}{8}$ "- $\frac{1}{2}$ "	1	1	1	1	34981	Ratchet	1	1	1	1	40114	$\frac{7}{8}$ "	1	1	1	1	60044	$\frac{3}{8}$ "	1	1	1	1
Short Double Offset Box-type						34982	Speeder Handle	1	1	1	1	40116	$\frac{1}{2}$ "	1	1	1	1	60046	$\frac{1}{2}$ "	1	1	1	1
15612	$\frac{3}{8}$ "- $\frac{1}{2}$ "	1	1	1	1	34984	9 $\frac{1}{2}$ " Ext. Bar	1	1	1	1	40118	$\frac{9}{16}$ "	1	1	1	1	60048	$\frac{1}{2}$ "	1	1	1	1
15613	$\frac{1}{2}$ "- $\frac{3}{4}$ "	1	1	1	1	34985	Hdl. Bar	1	1	1	1	40120	$\frac{5}{8}$ "	1	1	1	1	60052	$\frac{1}{8}$ "	1	1	1	1
15614	$\frac{5}{8}$ "- $\frac{1}{2}$ "	1	1	1	1	34986	Hinged Offset	1	1	1	1	40121	$\frac{3}{4}$ "	1	1	1	1	60056	$\frac{1}{4}$ "	1	1	1	1
Long Double Offset Box-type						34987	5" Ext. Bar	1	1	1	1	40122	$\frac{1}{2}$ "	1	1	1	1	60058	$\frac{1}{8}$ "	1	1	1	1
15625	$\frac{3}{8}$ "- $\frac{3}{8}$ "	1	1	1	1	34993	Univ. Jt.	1	1	1	1	40124	$\frac{3}{8}$ "	1	1	1	1	Handles					
15626	$\frac{1}{2}$ "- $\frac{1}{2}$ "	1	1	1	1	34998	Ratchet	1	1	1	1	40126	$\frac{1}{2}$ "	1	1	1	1	69987	Ratchet	1	1	1	1
15627	$\frac{3}{8}$ "- $\frac{1}{2}$ "	1	1	1	1	Double Hex Sockets						40128	$\frac{1}{4}$ "	1	1	1	1	69995	8 $\frac{1}{2}$ " Ext. Bar	1	1	1	1
(Miniature) Half and Half						30012	$\frac{3}{8}$ "	1	1	1	1	40130	$\frac{1}{8}$ "	1	1	1	1	69996	Hdl. Bar	1	1	1	1
15641	$\frac{7}{8}$ "	1	1	1	1	30014	$\frac{1}{2}$ "	1	1	1	1	40132	$\frac{1}{4}$ "	1	1	1	1	69997	Sliding Offset	1	1	1	1
15642	$\frac{1}{2}$ "	1	1	1	1	30016	$\frac{1}{4}$ "	1	1	1	1	40134	$\frac{1}{8}$ "	1	1	1	1	69998	Hinged Offset	1	1	1	1
15643	$\frac{3}{8}$ "	1	1	1	1	30018	$\frac{3}{8}$ "	1	1	1	1	40136	$\frac{1}{8}$ "	1	1	1	1						
15644	$\frac{1}{4}$ "	1	1	1	1	30020	$\frac{1}{4}$ "	1	1	1	1	40140	$\frac{1}{4}$ "	1	1	1	1						
15645	$\frac{3}{16}$ "	1	1	1	1	30022	$\frac{3}{16}$ "	1	1	1	1												
15646	$\frac{3}{16}$ "	1	1	1	1	30024	$\frac{3}{16}$ "	1	1	1	1												

MASTER WRENCH SETS

IN PORTABLE DOUBLE-DUTY STANDS

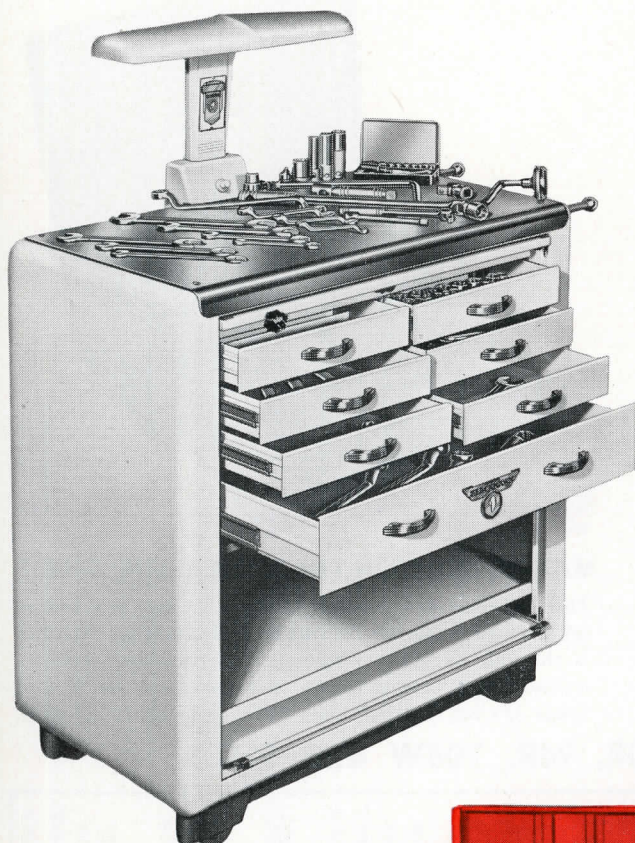
100DD

NEW!

Here is the finest, handiest, most modern work-bench wrench assortment on the market! 100DD is truly what every master mechanic wants — portability, complete wrench selection, streamlining, full utility, more than enough space, specific compartments, theft protection — plus the ever-ready fluorescent light.

100DD is a winner for looks and a winner for service. Mechanic has everything at his fingertips to rush through flat-rate jobs for extra money. The fact that shops are being equipped complete with these modern, practical tool assortments is proof in itself of their popularity and demand. For real service efficiency, own a 100DD.

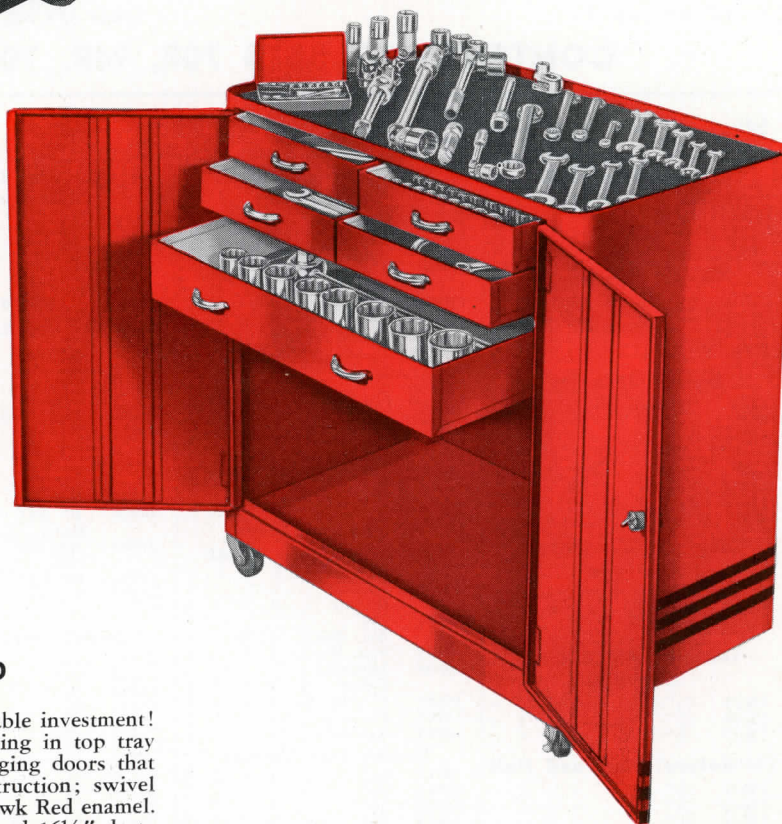
New 100DD set has 52 sockets ranging from 3/16" to 1-13/16", 24 open-end and box-type wrenches and 26 handles and attachments, as listed on page 37.



Look at all the sparkling Blackhawk Wrenches — the beautiful, heavy-duty "Red Rover" stand — designed for easier, better work — all this is yours in the Master 100DS Set.

Blackhawk again brings you a carefully selected assortment of wrenches in a tool totter thousands of mechanics now proudly own. Everything is ready for instant use and you can roll it all right up to the job. Modern, clean styling of complete 100DS impresses customers, too.

100DS



DS "RED ROVER" STAND

DS "Red Rover" Stand — is an easy, profitable investment! Has five, free-gliding drawers; fibre matting in top tray and drawers to silent tool jiggling; swinging doors that lock up entire front; welded, steel construction; swivel wheels that lock; all in a brilliant Blackhawk Red enamel. Size of stand is 32-9/16" high, 30" wide and 16 1/8" deep.

RECOGNIZED BY MECHANICS AS THE MOST PRACTICAL WRENCH-BENCH DESIGNED

**DD
PORTABLE
WRENCH
BENCH**



COMPLETELY PORTABLE — Solid steel bar handles pull out to lift and steer wrench-bench like wheel barrow. DD stand rolls easily and silently.



THEFT PROTECTION — Doors lock up entire front. When ready for use, doors slide back to give complete access to drawers.



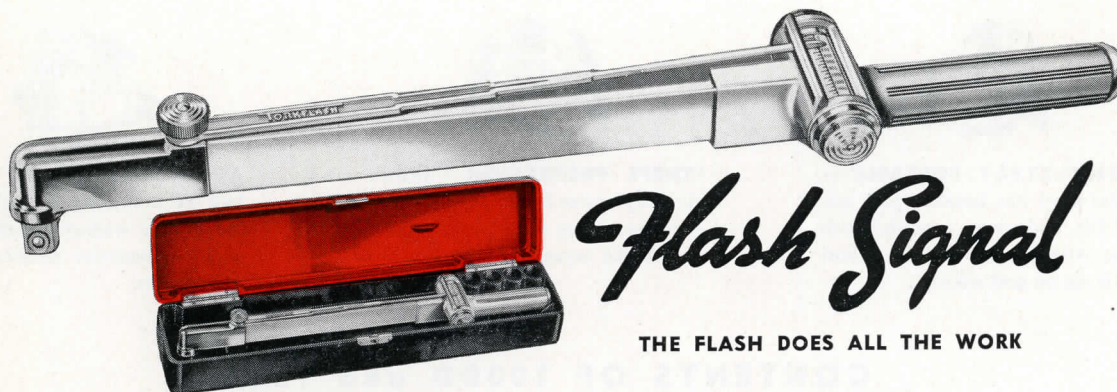
ADDITIONAL UTILITY can be had by mounting a vise on the top of the wrench bench. Rugged construction assures sound foundation.

CONTENTS OF 100DD and 100DS

No.	Description or Size of Wrenches	100DD	100DS	No.	Description or Size of Wrenches	100DD	100DS	No.	Description or Size of Wrenches	100DD	100DS
MINIATURE HALF AND HALF				3/8" DRIVE HANDLES AND SOCKETS				Sockets (Double Hex)			
15641	3/32"	1	1	<i>Handles</i>				40128	7/8"	1	1
15642	1/4"	1	1	34981	7" Ratchet	1	1	40130	1 1/8"	1	1
15643	5/16"	1	1	34982	16 1/8" Speeder			40132	1 1/4"	1	1
15644	3/8"	1	1		Hdl.	1	1	40134	1 1/2"	1	1
15645	1/2"	1	1	34984	9 1/2" Ext. Bar	1	1	40136	1 3/4"	1	1
15646	3/4"	1	1	34985	7" Hdl. Bar	1	1	40140	1 1/2"	1	1
TAPPET OPEN-END				34986	7 1/2" Hgd. Off.	1	1	Sockets (Double Sq.)			
1090D	1/2" - 5/16"	2	2	34987	5" Ext. Bar	1	1	40212	3/8"	1	1
1090G	1/2" - 3/8"	2	2	34993	Univ. Jt.	1	1	40214	1/2"	1	1
1092F	5/8" - 1 1/8"	2	2	<i>Sockets (Double Hex)</i>				40216	1 1/2"	1	1
1094	3/4" - 7/8"	2	2	30012	3/8"	1	1	40218	3/4"	1	1
HEXITE OPEN-END				30014	1/2"	1	1	40220	5/8"	1	1
4723	3/8" - 1/8"	1	1	30016	1 1/2"	1	1	40224	3/4"	1	1
4725	1/2" - 1/2"	1	1	30018	1 1/8"	1	1	Long, Thin Sockets (Double Hex)			
4725B	1/2" - 9/16"	1	1	30020	5/8"	1	1	40316	1 1/2"	1	1
4727	5/8" - 5/8"	1	1	30022	1 1/8"	1	1	40318	3/4"	1	1
4729	5/8" - 3/4"	1	1	30024	3/4"	1	1	40320	5/8"	1	1
4730A	1 1/8" - 1 1/8"	1	1	Universal Joint Sockets (Double Hex)				40324	3/4"	1	1
4731A	3/4" - 7/8"	1	1	30216	1/2"	1	1	40326	1 1/8"	1	1
4033C	1 1/8" - 1"	1	1	30218	9/16"	1	1	40328	7/8"	1	1
SHORT DBL. OFFSET BOX-TYPE				30220	5/8"	1	1	40332	1"	1	1
15612	3/8" - 1/8"	1	1	1/2" DRIVE HANDLES AND SOCKETS				40336	1 1/8"	1	1
15613	1/2" - 9/16"	1	1	<i>Handles</i>				3/4" DRIVE HANDLES AND SOCKETS			
15614	5/8" - 1 1/8"	1	1	49978	Univ. Jt.	1	1	<i>Handles</i>			
LONG DBL. OFFSET BOX-TYPE				49979	Screw Dr. Bit	1	1	69987	18 1/4" Ratchet	1	1
15625	3/4" - 3/8"	1	1	49980	Stud Setter	1	1	69995	8 1/2" Ext. Bar	1	1
15626	1 1/8" - 7/8"	1	1	49983	5 1/2" Ext. Bar	1	1	69996	17 7/8" Hdl. Bar.	1	1
15627	1 1/8" - 1"	1	1	49985	15" Hgd. Off.	1	1	69998	18 7/8" Hgd. Off.	1	1
1/4" DRIVE HANDLES AND SOCKETS				49986	10 7/8" Hdl. Bar.	1	1	Sockets (Double Hex)			
<i>Handles</i>				49990	10" Ext. Bar	1	1	60036	1 1/8"	1	1
24991	4 1/2" Ratchet	1	1	49994	19" Speeder Hdl.	1	1	60040	1 1/4"	1	1
24995	5" Grip Hdl.	1	1	49997	10 1/2" Ratchet	1	1	60044	1 3/8"	1	1
24996	5" Ext. Bar	1	1	<i>Sockets (Double Hex)</i>				60046	1 1/2"	1	1
24997	4" Hdl. Bar	1	1	40114	1 1/8"	1	1	60048	1 1/2"	1	1
24999	5" Hgd. Off.	1	1	40116	1 1/2"	1	1	60052	1 5/8"	1	1
<i>Sockets (Single Hex)</i>				40118	1 1/8"	1	1	60056	1 3/4"	1	1
21006	3/16"	1	1	40120	5/8"	1	1	60058	1 1/2"	1	1
21007	3/32"	1	1	40121	3/32"	1	1	CASES, STANDS			
21008	1/4"	1	1	40122	1 1/16"	1	1	N-5	Plastic Case	1	1
21009	5/32"	1	1	40124	3/4"	1	1	DD	Wrench-Bench	1	
21010	1/16"	1	1	40126	1 1/8"	1	1	DS	"Red Rover" Stand		1
21011	3/32"	1	1								
<i>Sockets (Double Hex)</i>											
21012	3/8"	1	1								
21014	1/2"	1	1								

TORKFLASH TENSION WRENCHES

Foolproof . . . Smashproof . . . A Really Rugged Torque Wrench



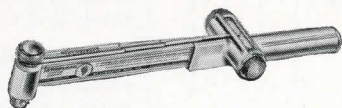
THE FLASH DOES ALL THE WORK

Torkflash eliminates dangerous "guess work" when tightening bolts or nuts to desired tension! Torkflash, through its ingenious design, signals when the proper amount of torque has been applied. Its operating principle is simple,—(1) select the proper torque, (2) set the indicator on the tension scale, and (3) pull (like an ordinary wrench attachment) until you see a bright flash of light. Torkflash prevents distortion, gasket blow out, bolt and part breakage, maintains compression, proper tension of nut and bolt assemblies, eliminates stripping of studs.

DIFFERENT DRIVES, LENGTHS and FT.-LBS.

No. 34968

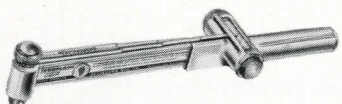
$\frac{3}{8}$ " DRIVE
NEW!



Fits sockets on page 18. Capacity 50 ft. lbs. Length, 12 $\frac{1}{2}$ ". Head width 9/16". Finished in chrome plate. Packed in fibre container.

No. 39968

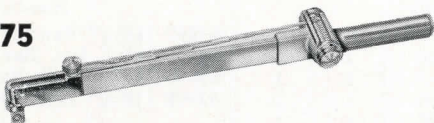
7/16" DRIVE



Fits sockets on page 14. Capacity, 50 ft. lbs. Length, 12 $\frac{1}{2}$ ". Head width, 9/16". Has fibre container.

No. 39975

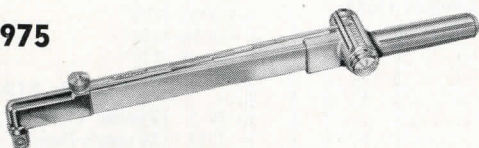
7/16" DRIVE



Fits sockets on page 14. Capacity, 133 ft. lbs. Overall length, 16 $\frac{1}{2}$ ". Overall head width, 9/16". Packed in plastic case.

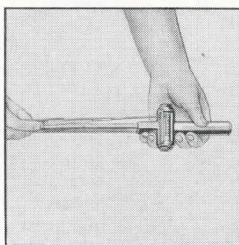
No. 49975

$\frac{1}{2}$ " DRIVE

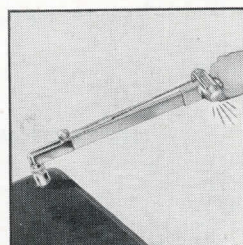


Fits sockets on page 22. Capacity, 133 ft. lbs. Length, 16 $\frac{1}{2}$ ". Overall head width, 9/16". Packed in plastic case. No. 49975X is No. 49975 packed in fibre container.

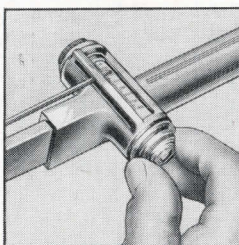
THIS STOPLIGHT TELLS YOU



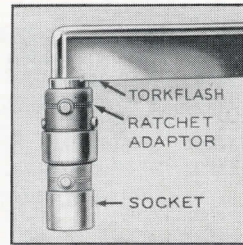
READING IS PRE-SET —Pointer is positioned on required dial reading before pull is exerted. Torkflash is permanently accurate because deflection of its spring-steel shaft is measured directly.



INSTANT SIGNAL —Operator pulls until pointer flashes its light. No delicate coils, hair springs, friction lever devices, dial hook-ups or clicks. Dropping does not impair operation.



VARIABLE TENSION —Scales show Inch-Pounds or Foot-Pounds and have guide for spark plug sizes. No. 39968 Torkflash has scale for cast iron and aluminum cylinder heads.



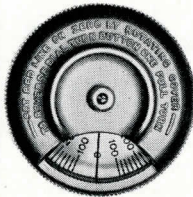
USE RATCHET ADAPTORS (see pages 12, 13, 20, 21) for speeding up nut tightening. Gives Torkflash advantages of "built-in" ratchet—but retains compactness.

HEAVY-DUTY TENSION WRENCHES . . . 175 TO 1000 FT-LBS

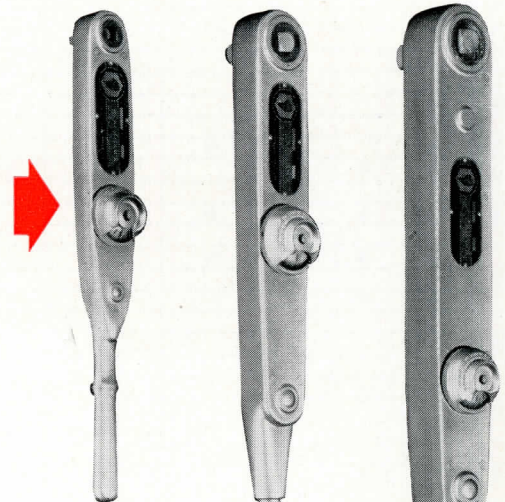
**TENSION
INDICATORS**

No. 49969 with $\frac{1}{2}$ " Square Drive and 175 Foot-Pounds Capacity.

No. 49969 is the logical Torque Indicator when requirements exceed the 133 Foot-Pound capacity of "Torkflash" Tension Wrenches. Used in tightening bearing caps, flanged connections, and cylinder heads etc. on marine engines, aviation engines, tractors and similar equipment within 0 to 175 Foot-Pound range.



"STAY-SET" DIAL—Remains at maximum torque reading *after* tension is released. Reset to zero by simply turning center knob. Permits careful check of obtained tension after pulling has ceased.



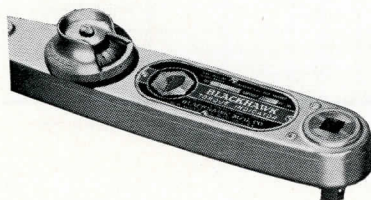
No. 69969 with $\frac{3}{4}$ " Square Drive and 500 Foot-Pounds Capacity.

The 0 to 500 Foot-Pound range of the Blackhawk No. 69969 Indicator is widely adaptable in power plants, diesel engine field, steam fitting work and many operations in marine, railway and petroleum fields.



No. 89969 with 1" Square Drive and 1000 Foot-Pounds Capacity.

No. 89969, which has the same sensitivity found in smaller Blackhawk Tension Indicators, has an extra-long handle leverage and 1000 Foot-Pounds capacity for extra-heavy duty work in the refinery, railway, marine, power plant and other fields.



PERMANENTLY ACCURATE
—Spring-steel shaft (enclosed in cover and anchored at two fulcrum points) actuates the dial which magnifies deflection of the shaft 26 times. No hair springs or delicate construction. Design permits grip on any point of handle or extension of handle.

REMOVABLE DRIVE LUG—Slips into the narrow head—either on upper or underside of the instrument. Permits operator to stand in normal position to pull and take dial reading when the socket is above the wrench.

GUIDE TO WRENCH & SOCKET SIZES FOR BOLTS & NUTS . . .

To order wrenches use sizes in this column

HEXAGON Wrenches Will Fit:											NOMINAL SIZE OVER FLATS	SQUARE Wrenches Will Fit:			
U.S.S.		S.A.E.	Mfrs. Std.	AMERICAN STD.								U.S.S.		Mfrs. Std.	
Regular Series		Heavy Series		Lt. Series											
Bolts and Nuts	Cap Screws	Bolts and Nuts	Bolt Heads	Bolts Unfinished, Semi-Finished and Finished	Nuts, Jam Nuts, Unfinished, Semi-Finished and Finished	Bolts, Nuts, Jam Nuts, Unfinished, Semi-Finished and Finished	Nuts, Jam Nuts	Cap Screws	Machine Screw Nuts and Stove Bolt Nuts		Bolts and Nuts	Cap Screws	Set Screws	Bolt Heads	
									#0 & 1	$\frac{5}{32}$					
									#2 & 3	$\frac{7}{16}$					
									#4	$\frac{1}{4}$			$\frac{1}{4}$		
									#5 & 6	$\frac{5}{16}$			$\frac{5}{16}$		
									#8	$\frac{3}{8}$					
									#10	$\frac{3}{8}$			$\frac{3}{8}$	$\frac{1}{4}$	
									#12 & 14	$\frac{7}{16}$		$\frac{5}{16}$	$\frac{7}{16}$	$\frac{5}{16}$	
										$\frac{11}{16}$					
$\frac{1}{8}$	$\frac{1}{8}$									$\frac{13}{16}$					
$\frac{9}{16}$	$\frac{9}{16}$			$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{15}{16}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$		
										$\frac{17}{16}$					
$\frac{1}{4}$	$\frac{5}{16}$	$\frac{5}{16}$		$\frac{5}{16}$		$\frac{1}{4}$	$\frac{5}{16}$	$\frac{5}{16}$		$\frac{19}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	
			$\frac{5}{16}$							$\frac{21}{16}$					
	$\frac{3}{8}$	$\frac{3}{8}$		$\frac{3}{8}$	$\frac{5}{16}$		$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{8}$	$\frac{23}{16}$	$\frac{5}{16}$	$\frac{7}{16}$	$\frac{1}{8}$	$\frac{3}{8}$	
$\frac{5}{16}$						$\frac{5}{16}$				$\frac{25}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$		
	$\frac{7}{16}$	$\frac{7}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{3}{8}$		$\frac{7}{16}$	$\frac{7}{16}$	$\frac{3}{8}$	$\frac{27}{16}$				$\frac{7}{16}$	
										$\frac{29}{16}$					
$\frac{3}{8}$			$\frac{7}{16}$			$\frac{3}{8}$				$\frac{31}{16}$	$\frac{3}{8}$	$\frac{9}{16}$			
										$\frac{33}{16}$					
	$\frac{1}{2}$	$\frac{1}{2}$		$\frac{1}{2}$	$\frac{7}{16}$		$\frac{1}{2}$	$\frac{1}{2}$		$\frac{35}{16}$		$\frac{5}{8}$	$\frac{3}{4}$	$\frac{1}{2}$	
$\frac{7}{16}$						$\frac{7}{16}$				$\frac{37}{16}$	$\frac{7}{16}$				
	$\frac{9}{16}$		$\frac{1}{2}$		$\frac{1}{2}$			$\frac{9}{16}$		$\frac{39}{16}$					
										$\frac{41}{16}$				$\frac{9}{16}$	
$\frac{1}{2}$	$\frac{5}{8}$	$\frac{9}{16}$		$\frac{9}{16}$	$\frac{9}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$		$\frac{43}{16}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{7}{8}$		
		$\frac{5}{8}$		$\frac{5}{8}$		$\frac{9}{16}$	$\frac{5}{8}$			$\frac{45}{16}$				$\frac{5}{8}$	
$\frac{9}{16}$										$\frac{47}{16}$	$\frac{9}{16}$				
	$\frac{3}{4}$	$\frac{11}{16}$	$\frac{5}{8}$		$\frac{5}{8}$			$\frac{3}{4}$		1			1		
$\frac{5}{8}$		$\frac{3}{4}$				$\frac{5}{8}$	$\frac{3}{4}$			$1\frac{1}{16}$	$\frac{5}{8}$				
	$\frac{7}{8}$			$\frac{3}{4}$	$\frac{3}{4}$			$\frac{7}{8}$		$1\frac{1}{8}$			$1\frac{1}{8}$	$\frac{3}{4}$	
			$\frac{3}{4}$							$1\frac{1}{4}$					
$\frac{3}{4}$	1	$\frac{7}{8}$				$\frac{3}{4}$	$\frac{7}{8}$			$1\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$\frac{7}{8}$	
	$1\frac{1}{8}$		$\frac{7}{8}$		$\frac{7}{8}$			1		$1\frac{3}{8}$		$1\frac{1}{8}$	$1\frac{3}{8}$		
$\frac{7}{8}$		1				$\frac{7}{8}$	1			$1\frac{5}{8}$	$\frac{7}{8}$				
	$1\frac{1}{4}$			1	1			$1\frac{1}{8}$		$1\frac{7}{8}$			$1\frac{1}{2}$	1	
			1							$1\frac{9}{8}$					
1	$1\frac{3}{8}$	$1\frac{1}{8}$		$1\frac{1}{8}$	$1\frac{1}{8}$	1	$1\frac{1}{8}$		$1\frac{1}{4}$	$1\frac{11}{8}$	1			$1\frac{1}{8}$	
			$1\frac{1}{8}$							$1\frac{13}{8}$					
$1\frac{1}{8}$		$1\frac{1}{4}$		$1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{4}$			$1\frac{15}{8}$	$1\frac{1}{8}$			$1\frac{1}{4}$	
			$1\frac{1}{4}$							$1\frac{17}{8}$					
$1\frac{1}{4}$		$1\frac{3}{8}$				$1\frac{1}{4}$	$1\frac{3}{8}$			2	$1\frac{1}{4}$				
			$1\frac{3}{8}$		$1\frac{3}{8}$	$1\frac{3}{8}$				$2\frac{1}{8}$				$1\frac{3}{8}$	
			$1\frac{3}{8}$							$2\frac{3}{8}$					
$1\frac{3}{8}$		$1\frac{1}{2}$		$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{3}{8}$	$1\frac{1}{2}$			$2\frac{5}{8}$	$1\frac{3}{8}$			$1\frac{1}{2}$	
			$1\frac{1}{2}$							$2\frac{7}{8}$					
$1\frac{1}{2}$						$1\frac{1}{2}$				$2\frac{9}{8}$	$1\frac{1}{2}$			$1\frac{5}{8}$	
			$1\frac{5}{8}$		$1\frac{5}{8}$					$2\frac{11}{8}$					
$1\frac{5}{8}$						$1\frac{5}{8}$				$2\frac{13}{8}$	$1\frac{5}{8}$				
			$1\frac{3}{4}$	$1\frac{3}{4}$	$1\frac{3}{4}$					$2\frac{15}{8}$				$1\frac{3}{4}$	
			$1\frac{3}{4}$			$1\frac{3}{4}$				$2\frac{17}{8}$					
$1\frac{3}{4}$				$1\frac{7}{8}$	$1\frac{7}{8}$					$2\frac{19}{8}$	$1\frac{3}{4}$				
			$1\frac{7}{8}$			$1\frac{7}{8}$				$2\frac{21}{8}$				$1\frac{7}{8}$	
$1\frac{7}{8}$						$1\frac{7}{8}$				$2\frac{23}{8}$	$1\frac{7}{8}$				
			2		2					3				2	
						2				$3\frac{1}{8}$	2				
2				$2\frac{1}{4}$	$2\frac{1}{4}$					$3\frac{3}{8}$					
$2\frac{1}{4}$			$2\frac{1}{4}$			$2\frac{1}{4}$				$3\frac{1}{2}$	$2\frac{1}{4}$			$2\frac{1}{4}$	

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